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# DEFINING MORPHOLOGICAL ISOGLOSSES: THE 'BROKEN' PLURAL AND SEMITIC SUBCLASSIFICATION\*

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*Dedicated to the memory of Robert Hetzron (1937–1997), linguist and scholar of Semitic languages, whose seminal work established the issue under discussion here on a solid linguistic foundation.*

## I. MORPHOLOGICAL ISOGLOSSES AND SEMITIC SUBCLASSIFICATION

THE question of Semitic subclassification, particularly the question of the place of Arabic within Semitic, has become controversial since R. Hetzron argued, on the basis of isoglosses in the verbal morphology, that Arabic should be classed with Northwest Semitic in a Central Semitic subbranch.<sup>1</sup> Earlier researchers had generally accepted C. Brockelmann's<sup>2</sup> classification of the Semitic languages into three subgroups—East, Northwest, and Southwest, the last including Arabic with Ethiopian Semitic and the languages of South Arabia. A minority opinion, represented by, among others, J. Cantineau, W. Leslau, W. W. Müller, and I. Diakonoff<sup>3</sup> favored a division into four branches, in which Arabic (SW Semitic) is separate both from NW Semitic and the 'Southeast' Semitic languages of South Arabia and Ethiopia. Hetzron's classification of Arabic with NW Semitic has been

\* A version of this paper was presented at the North American Conference on Afroasiatic Linguistics in Philadelphia in March 1996 and a much-abridged Japanese version at the African Linguistic Perspectives conference in Tokyo in June 1996. I would like to thank Robert Hetzron, Robert Hobermann, Gene Gragg, Carleton Hodge, Lionel Bender, Alan Kaye, David Testen, Olga Kapeliuk, Akio Nakano, Shuji Matsushita, Miyuki Takashina, and others present at both conferences, and the anonymous JNES referees for their comments. Special thanks also to John Huehnergard for originally suggesting this line of research and for help with bibliography.

<sup>1</sup> R. Hetzron, "La division des langues sémitiques," in A. Caquot and D. Cohen, eds., *Actes du premier congrès international de linguistique sémitique et chamito-sémitique* (Paris, 1974), pp. 182–94; idem, "Genetic Classification and Ethiopian Semitic," in J. Bynon and T. Bynon, eds., *Hamito-Semitic* (The Hague, 1975), pp. 103–27; and idem, "Two Principles of Genetic

Classification," *Lingua* 38 (1976): 89–106 [cited hereafter as "Two Principles"]. The key isoglosses for Hetzron's classification are (1) the first, second, and third person singular suffixes of the perfect—-tV in Hebrew, Aramaic, and Arabic, -kV in South Arabian and Ethiopian Semitic, and (2) the presence of gemination on the second consonant in the imperfect stem in Akkadian and Modern South Arabian (MSA) and Ethiopian Semitic vs. its absence in Arabic and NW Semitic.

<sup>2</sup> *Grundriß der vergleichenden Grammatik der semitischen Sprachen* (Berlin, 1908–13).

<sup>3</sup> J. Cantineau, "Accadien et sudarabique," *Bulletin de la Société Linguistique de Paris* 33 (1932): 175–204; W. Leslau, "The Position of Ethiopic in Semitic: Akkadian and Ethiopic," in *Actes des 24. internationalen Orientalisten-Kongresses München* (Wiesbaden, 1959), pp. 251–53; W. W. Müller, "Über Beziehungen zwischen den neusüdarabischen und abessinischen Sprachen," *Journal of Semitic Studies* 9 (1964): 50–55; and I. Diakonoff, *Semito-Hamitic Languages: An Essay in Classification* (Moscow, 1965). In a more recent work (*Afrasian Languages* [Moscow, 1988], p. 18), Diakonoff suggests a five-branch division, separating Old and Modern South Arabian (OSA and MSA), on the one hand, from Ethiopian Semitic, on the other.

adopted by a number of Semitists, among them G. Goldenberg, A. Faber, R. M. Voigt, J. Huehnergard, J. Rodgers, and A. Kaye,<sup>4</sup> but has been challenged by others, notably W. Diem and A. Zaborski,<sup>5</sup> on the grounds that it gives priority to one set of morphological isoglosses while ignoring others—in particular the noun plural morphology—which had in the past been deemed significant. Hetzron dismisses the 'broken' plural system as a shared retention:

The traditional unit of South Semitic is untenable—even though Arabic does share some features with South Arabian and Ethiopic (the articulation *f* for northern *p*, the existence of 'broken plurals'—definitely a common retention).<sup>6</sup>

Rabin, hinting at a similar classification twenty years earlier, had dismissed it as an innovation:

Some of the results of Rabin as well as a recent study by al-Yasin suggest connections of Arabic with North-West Semitic. Arabic has generally been considered to form a separate branch of the Semitic languages—called South Semitic or SW Semitic. Among the features distinguishing this branch are . . . the broken plurals. . . . The broken plurals are almost certain to be a late development which has little value as a genetic criterion.<sup>7</sup>

From a methodological point of view Hetzron is correct, and Rabin is mistaken. If the system is innovative, it does indeed have great value as a genetic criterion. On the other hand, Rabin's statement does appear to be an accurate reflection of scholarly opinion up to that time, whereas Hetzron's assertion to the contrary would seem to require more substantial support. Diem sums up the problem when he says:

Die Situation ist nicht ganz so einfach. Die Existenz einfacher Formen innerer Plurale im Nordwestsemitischen beweist zunächst nur, daß, was schon lang bekannt ist, die Erscheinung des inneren Plurals dem Ursemitischen nicht fremd war, aber nicht, daß das Ursemitische ein derartiges reiches System wie das Südostsemitische und vor allem das Arabische kannte. . . .<sup>8</sup>

<sup>4</sup> G. Goldenberg, "The Semitic Languages of Ethiopia and Their Classification," *BSOAS* 40 (1977): 461–507; A. Faber, "Genetic Subgroupings of the Semitic Languages" (Ph.D. diss. University of Texas at Austin, 1980); R. M. Voigt, "The Classification of Central Semitic," *Journal of Semitic Studies* 32 (1987): 1–21; J. Huehnergard, "Remarks on the Classification of the Northwest Semitic Languages," in J. Hoftijzer and G. van der Kooij, eds., *The Balaam Text from Deir 'Alla Re-Evaluated: Proceedings of the International Symposium Held at Leiden 21–24 August 1989* (Leiden, 1991), pp. 284–93 [cited hereafter as "Remarks on Classification"]; J. Rodgers, "The Subgrouping of the South Semitic Languages," in A. Kaye, ed., *Semitic Studies in Honor of Wolf Leslau on the Occasion of his Eighty-Fifth Birthday* (Wiesbaden, 1991), pp. 1323–35; and A. Kaye, "Does Ugaritic Go with Arabic in Semitic Genealogical Sub-Classification?," *Folia Orientalia* 28 (1991): 115–27.

<sup>5</sup> W. Diem, "Die genealogische Stellung des Arabischen in den semitischen Sprachen: Ein ungelöstes Problem der Semitistik," in W. Diem and S. Wild, eds.,

*Studien aus Arabistik und Semitistik A. Spitaler zum 70. Geburtstag* (Wiesbaden, 1980), pp. 65–85 [cited hereafter as "Die genealogische Stellung"]; A. Zaborski, "The Position of Arabic within the Semitic Dialect Continuum," in K. Dévényi and T. Iványi, eds., *Proceedings of the Colloquium on Arabic Grammar* (Budapest, 1991), pp. 365–75; and idem, "Problèmes de classification des dialectes sémitiques méridionaux," in D. Caubet and M. Vanhove, eds., *Actes des premières journées internationales de dialectologie arabe de Paris* (Paris, 1994), pp. 399–411.

<sup>6</sup> Hetzron, "Two Principles," p. 102.

<sup>7</sup> C. Rabin, "The Beginnings of Classical Arabic," *Studia Islamica* 4 (1955): 19–37.

<sup>8</sup> "The situation is not so simple. The existence of simple forms of the inner plurals in NW Semitic only proves what has long been known—that the phenomenon of inner plurals was not foreign to Proto-Semitic—but not that Proto-Semitic knew such a rich system as Southeast Semitic and especially Arabic"; Diem, "Die genealogische Stellung," p. 76.



After evaluating the isoglosses which argue in favor of both classifications, Diem concludes: "Die zentrale Frage ist die Interpretation der inneren Plurale des Arabischen und Südostsemitischen. Von ihrer Beurteilung hängt die Entscheidung ab."<sup>9</sup>

In previous research, I have attempted a reconstruction of the internal noun plural in Semitic and Afroasiatic on the basis of a comparison of data from a large number of the relevant languages.<sup>10</sup> In what follows, I intend to take up the research project proposed by Diem, to look more thoroughly at the internal plural in Semitic languages, and to bring this evidence to bear on the classification debate.

## II. METHODOLOGICAL ISSUES

There are two principal reasons why the noun plural morphology has disappeared from recent classification debates. The first is that the broken plural system has always been a poorly understood area of Semitic morphology, both synchronically and diachronically. The second is that there is no clear consensus in historical linguistics generally about the appropriate method for comparative work in morphology.

To address the first issue first, the broken plural problem is one which shows up a fundamental inadequacy of the traditional pedagogical 'root' and 'pattern' grammar as a tool of diachronic analysis. The fact that the traditional grammars offer very little analysis of relationships between forms or patterns has led to a mistaken assumption that such relationships cannot be categorized or do not exist. Thus, with regard to the issue at hand, a traditional assumption has been that the association of singulars to broken plurals is largely random or unpredictable and that there is no formal relationship between singulars and plurals. The first assumption is mistaken, as statistical studies such as those of A. Murtonen and M. Levy have shown,<sup>11</sup> while the second assumption largely depends on the theoretical or analytical framework adopted. Recent theoretical work under the rubric of autosegmental or prosodic morphology has greatly enriched the formal apparatus available for analysis of morphological systems like those found in Arabic and has consequently opened the way for a clearer understanding of the formal basis of the relationship between singulars and plurals.<sup>12</sup>

As regards the second issue, a widespread view in historical linguistics is that historical reconstruction in morphology must be based on comparison of phonologically cognate

<sup>9</sup> "The central question is the interpretation of the inner plurals of Arabic and Southeast Semitic—the decision depends upon a critical evaluation of them"; *ibid.*, p. 82.

<sup>10</sup> See my "The Broken Plural Problem in Arabic, Semitic and Afroasiatic: A Solution Based on the Diachronic Application of Prosodic Analysis" (Ph.D. diss., Yale University, 1992) [cited hereafter as "Broken Plural Problem"].

<sup>11</sup> A. Murtonen, *Broken Plurals: The Origin and Development of the System* (Leiden, 1964); M. Levy, "The Plural of the Noun in Modern Standard Arabic" (Ph.D. diss., University of Michigan, 1971).

<sup>12</sup> See, for example, J. McCarthy, "A Prosodic Ac-

count of Arabic Broken Plurals," in I. Dihoff, ed., *Current Trends in African Linguistics* (Dordrecht, 1983), pp. 289–320; M. Hammond, "Templatic Transfer in Arabic Broken Plurals," *Natural Language and Linguistic Theory* 6 (1988): 247–70; J. McCarthy and A. Prince, "Foot and Word in Prosodic Morphology: The Arabic Broken Plural," *Natural Language and Linguistic Theory* 8 (1990): 209–83; my "Arabic Broken Plurals: Arguments for a Two-Fold Classification of Morphology," in M. Eid and J. McCarthy, eds., *Perspectives on Arabic Linguistics II* (Amsterdam and Philadelphia, 1990), pp. 94–119; and my "Broken Plural Problem," pp. 21–174.



forms or formatives.<sup>13</sup> I believe that this view is actually quite mistaken. Comparison in morphology can and should be approached in a way entirely analogous to phonological comparison. That is, we compare elements in the systems of different languages on the basis of distribution, rather than similarity in form. The observation that both English and German have a voiced dental/alveolar stop /d/ does not reveal anything about the history of the languages or of their relationship to each other. On the other hand, the fact that English /d/ is distributed in a way very similar to formally different German /t/ (first consonant of words meaning "day," "daughter," etc.) gives us evidence that the languages are related and that a sound change has taken place in one language or both. To take a morphological example, if we compare the highly allomorphic noun case systems of Greek and Latin, we could do so on the basis of formal similarities. We might note that Greek has a case ending *-os* (nominative and genitive singular) and that the superficially closest Latin ending is *-o:s* (accusative plural). One could then speculate about whether the ending was originally accusative plural or genitive singular or nominative singular and how and why it has shifted from one meaning to the other. This would clearly be a bizarre and fruitless procedure. The proper approach would be to compare those case endings which share the same distribution defined both in terms of function and phonologically defined stem (or declination) class. We would then see that Greek *-os* corresponds to Latin *-us* (in the role of nominative singular for one class of nouns) and to Latin *-is* (in the role of genitive singular for another class). This discrepancy is evidence that a formal change of a definable type (phonological merger in Greek, conditional split in Latin, or analogical reshaping) has in fact taken place.

To put it another way, comparing phonologically similar or cognate forms can only provide evidence that a shift in distribution or function (= meaning) *may* have taken place. Comparison on the basis of form cannot, however, provide evidence of analogy or of sound changes which are not already known. By contrast, comparison on the basis of distribution and function cannot provide evidence of shift in distribution or function but is the only way to discover evidence of formal changes due to sound change or analogy. We have to control one of the variables (form or function/distribution) in order to discover evidence of change in the other.

The approach to the diachronic study of the broken plural system in Semitic languages has almost always been based on a comparison of formal rather than distributional similarities. Where reconstruction was attempted, such an approach necessarily led to an explanation in terms of semantic shift. Hence the theory that the "forms" of the broken plurals were originally "collectives" or "abstracts" was widely accepted<sup>14</sup> in spite of the fact

<sup>13</sup> For a strong statement of this position, see, for example, A. Fox, *Linguistic Reconstruction: An Introduction to Theory and Method* (Oxford, 1995), pp. 94–95; or H. Koch, "Reconstruction in Morphology," in M. Durie and M. Ross, eds., *The Comparative Method Reviewed* (Oxford, 1996), p. 220.

<sup>14</sup> For example by S. Moscati, A. Spitaler, E. Ullendorf, and W. von Soden, *An Introduction to the Comparative Grammar of the Semitic Languages* (Wiesbaden, 1964). The main support for this 'collective' theory comes from the argument that nonrational referent plural nouns in Arabic agree with feminine singular ad-

jectives. Actually, this agreement pattern is an artificial norm which only becomes general in Arabic written after the codification of Arabic grammar in the eighth to ninth centuries. The agreement patterns in the Quran and pre-Islamic poetry are much more complex. (See R. K. Belnap and O. Shabaneh, "Variable Agreement and Nonhuman Plurals in Classical and Modern Standard Arabic," in E. Brose, M. Eid, and J. McCarthy, eds., *Perspectives on Arabic Linguistics IV* (Amsterdam and Philadelphia, 1992), pp. 245–62; and A. F. L. Beeston, "Some Features of Modern Standard Arabic," *Journal of Semitic Studies* 20 (1975): 62–68.

that (1) there is no Semitic language in which one finds internal and external plurals contrasting in a productive way (as true plurals vs. collectives for example) and that (2) the vast majority of the plural "forms" do not appear in any function other than the plural in any Semitic language.<sup>15</sup> In the domain of classification, the form-based approach leads to irrelevant comparisons of phonologically similar but noncorresponding forms and to obscuration of the evidence for innovations which may be essential for subclassification. In order to identify isoglosses in the noun plural systems of the Semitic languages and in order to uncover evidence of innovatory changes relevant for classification, it is necessary to consider the relative distribution of the various plural forms in regard to their respective singular types.

### III. THE EVIDENCE

In the case at hand we should distinguish two issues: (1) the question of the existence of an internal plural beside an external one: at what historical depth can we reconstruct the existence of an internal plural, and why should both types exist?; and (2) the question of the rich allomorphy within the internal plural of Arabic (and possibly other Semitic or Afroasiatic languages): at what depth can we reconstruct a formally complex internal plural system comparable to that of Classical Arabic?

#### III.1 INTERNAL VS. EXTERNAL PLURALS

On the basis of the relative distribution of internal and external plurals in Semitic languages it should be possible to decide what the original distribution of internal and external plurals was (that is, the original basis for the distinction) in Proto-Semitic and what type of shift or analogic spreading has affected the distributional range of the two types in the attested languages. Table 1 summarizes the facts of distribution of internal and external plurals through singular stem classes (see below) in the Semitic languages.

TABLE 1

Distribution of Internal and External Plurals in Semitic<sup>16</sup>

sg. form	Ar.	OSA	Ge.	MSA	Ti.	He.	Arm.	Ak.
CVCC	i	i	i,e	i	i	i+e	i+e	e
CVCCat	i	i	e	i	i	i+e	i+e	e
CVCCVC	i	i	i	i	i	e	e	e
CVVCVC	i,e	i,e	i,e	i,e	i,e	e	e	e
CVCVVC	i,e	i,e	i,e	i,e	i,e	e	e	e

<sup>15</sup> For a more thorough elaboration of these arguments, see my "Broken Plural Problem," pp. 175-241.

<sup>16</sup> The designation "i+e" indicates that the plural form regularly shows both internal and external morphemes of plurality simultaneously. The designation "i,e" indicates that there are both internal plural forms and external plural forms which can occur with this

singular class. Listed singular forms represent the assumed underlying forms. Here and throughout the paper the following abbreviations are used: sg. = singular, pl. = plural, Ar. = Arabic, Ge. = Ge'ez, Ti. = Tigre, He. = Hebrew, Arm. = Aramaic, and Ak. = Akkadian.



On the basis of these distributional isoglosses alone, the Semitic languages fall clearly into three groups. In the Eastern group (Akkadian), the external plural is general. In Hebrew and Aramaic (NW Semitic) underived triconsonantal nouns have plural forms with a plural suffix which also show evidence of an intercalated vowel between the second and third consonants. Derived nouns and nouns with more than three consonants in these languages have external plurals only. The third group (SW Semitic) is characterized by an obligatory internal plural for both quadriconsonantal nouns and triconsonantals with no long vowel and by the existence of both internal and external plurals for triconsonantals with a long vowel. The relative distribution of internal and external plurals for long-vowel singulars in these languages (as most clearly represented in Arabic and Tigre) is that productively derived nouns (active participles, verbal nouns and adjectives, diminutives in Arabic) obligatorily take an external plural and that basic nouns which have these patterns (including lexicalized derived nouns—nouns which have acquired a meaning not predictable from their source) obligatorily take an internal plural.

Thus the relative distribution of internal and external plurals in Proto-Semitic seems quite clear. In all languages in which internal plural morphology is productive, it is more or less obligatory for base, underived triradical (and biradical) nouns (CVCC, CVCVC, CVC(V)Cat) with no long vowel. In all Semitic languages, the external plural is obligatory for derived nouns. For underived nouns with a long vowel, individual languages either do not permit an internal plural, or, if they allow an internal plural for some (specifically lexicalized derived) nouns of this class, they also allow the external plural for other (generally nonlexicalized derived) nouns of the same pattern. For nouns of four consonants, the internal plural is obligatory in one set of languages, not allowed in another set (although see below for a possible exception to this pattern in Hebrew). The most plausible conclusion is that the internal plural has spread by analogy to quadriliteral and lexicalized derived nouns in some languages (i.e., SW Semitic), while in others the external plural has spread by analogy to the base noun, either replacing the internal plural entirely (E Semitic) or being pleonastically superimposed upon internal plural forms (NW Semitic).

### III.2 ALLOMORPHY IN THE FORM OF THE INTERNAL PLURAL

#### III.2.1. *The Plural System of Arabic*

With regard to the problem of allomorphy, again the question is what is the relative distribution of the internal plural allomorphs through their respective singulars. Murtonen and Levy have independently laid a groundwork for discussion of this problem through their attempts to establish relative distribution of plural forms to singulars in Arabic on the basis of dictionary counts.<sup>17</sup> What these studies show is that the principal factor determining the form of the plural in Arabic is the form of the singular. The system is highly allomorphic: for a given singular pattern, two different plural forms may be equally fre-

<sup>17</sup> Murtonen, *Broken Plurals: The Origin and Development of the System*, based on Lane's uncompleted dictionary of Classical Arabic, and Levy, "The Plural of the Noun in Modern Standard Arabic," based on Wehr's *A Dictionary of Modern Written Arabic* (Ithaca,

New York, 1976). A summary of Levy's and Murtonen's data—total percentages of plurals for each singular and singulars for each plural—in chart form is given in my "Broken Plural Problem," pp. 97–98.



quent, and there may be no way to predict which of the two a particular singular will take. For some singulars, as many as three further statistically minor patterns are also possible, and there are a handful of nouns whose plural is completely anomalous. The range of allomorphy, though, is in general from two to five. The figure of 27 to 30 'forms' of the broken plural (given in traditional grammars such as those of W. Wright) is a meaningless number because no singular has the possibility of pluralizing according to all of them.

Starting from these statistical studies, which still take semantic features into account, I have shown<sup>18</sup> that internal plural allomorphy (like case suffix allomorphy in Latin) is a function of stem class, where stem class is defined in terms of three criteria—syllable structure, (stem-internal) vowel quality, and presence or absence of a suffix *-at*. This gives six groups of singular/plural pairs as represented in Table 2a.<sup>19</sup> Forms in parentheses here and in the following charts indicate minor plural patterns (fewer than 11 percent but more than 5 percent of all of the plurals of a given singular, taking into account in the case of Arabic both Levy's and Murtonen's data). Underlining here and in the following charts indicates a geminate consonant.

TABLE 2a

## The Arabic Stem-Internal Plural System

(1) Ci/uCC	→	<sup>2</sup> aCCaaC, CuCuuC
CaCC	→	CuCuuC, <sup>2</sup> aCCaaC, CiCaaC, ( <sup>2</sup> aCCuC)
CaCaC	→	<sup>2</sup> aCCaaC
(2) Ci/uCCat	→	Ci/uCaC
CaCCat	→	CaCaCaat, CiCaaC, Ci/uCaC
CVCVCat	→	CaCaCaat, CiCaaC
(3) CVCCV(V)C	→	CaCaaCi(i)C
(4) CVVCVC(at)	→	CawaaCiC
CVCVVC(at)	→	CaCaa <sup>2</sup> iC
(5) CaaCiC	→	Cu <u>CC</u> aaC, CaCaCat, Cu <u>CC</u> aC
(6) CVCaaC	→	<sup>2</sup> aCCiCat, CuCuC
CaCuuC	→	CuCuC, <sup>2</sup> aCCiCat
CaCiiC (n.)	→	CuCaCaa <sup>2</sup> , <sup>2</sup> aCCiCaa <sup>2</sup> ; CuCuC
CaCiiC (adj.)	→	CiCaaC

Table 2b gives examples of each type. This chart includes one example of an unmarked collective noun and a corresponding singulative derived by suffixation of *-at*, labeled as

<sup>18</sup> See again my "Broken Plural Problem," pp. 93–96.

<sup>19</sup> There is a seventh group which consists of a small set of adjectives, including adjectives of color or physical attributes and elative (comparative/superlative) adjectives, which have, in the singular, syllabic/vocalic patterns and/or affixes not found in noun forms and which are somewhat anomalous in the plural form—for example, <sup>2</sup>ahmaru → ħumrun "red," and kubraa → kubarun "bigger (f.)." We leave these out of consideration here, for the sake of simplifying the discussion.

A further complication, which we lack space to discuss here, is that singulars which are traditionally termed 'weak', that is, which have a long vowel or glide as part of the stem, form plurals which deviate in certain ways from the plural forms derived from singulars of the same class which have three 'sound' consonants in the stem: for example, CuCaat (← CaaCii = CaaCiGu) as in (<sup>2</sup>al)-qaadii → (<sup>2</sup>al)-qudaatu "judge," CiiCaan (← CaaC) as in baabun → biibaanun "door," CiCaCat (← CiiC) as in diikun → diyakatun "rooster."

(s/c). Although not logically part of the broken plural system, the singulative/collective pattern is formally similar to the type 2 feminine plural. As the two classes have merged or partially merged in some Semitic languages, comparative treatment requires that we consider them together.<sup>20</sup>

TABLE 2b

The Arabic Stem-Internal Plural System: Examples

(1)	ʔuḏnun	→	ʔaaḏaanun (<*ʔaʔḏaanun)	"ear"
	qirdun	→	quruudun	"monkey"
	ʕaynun	→	ʕuyunun, ʔaʕyun	"eye"
	waznun	→	ʔawzaanun	"measure"
	kalbun	→	kilaabun	"dog"
	farasun	→	ʔafraasun	"horse"
(2)	ḡurfatun	→	ḡurafun	"room"
	jabhatun	→	jabahaatun	"face"
	farxatun	→	firaaxun	"hen"
(s/c)	naḥlatun	←	naḥlun	"a bee" ← "swarm of bees"
(3)	ʕaqrabun	→	ʕaqaaribu	"scorpion"
(4)	ṣaaʕiqatun	→	ṣawaaʕiqu	"thunderbolt"
	jaziiratun	→	jazaaʔiru	"island"
(5)	ṭaalibun	→	ṭullaabun, ṭalabatun	"student"
	faamixun	→	fummaxun	"lofty, proud"
(6)	ʕamuudun	→	ʕumudun, ʔaʕmidatun	"column"
	baxiilun	→	buxalaaʔu	"miser"
	waliyyun	→	ʔawliyyaʔu	"governor"
	kabiirun	→	kibaarun	"big"

### III.2.2. *The Plural Systems of the Other Southern Languages*

The questions for comparative study are the following: (1) do other Semitic languages show allomorphic variation in the form of the internal plural?; (2) if so, is this allomorphic variation a function of stem classes defined in the same way as those of Arabic?; (3) and if so, how much formal similarity is there among the distributionally corresponding forms of the internal plural?

<sup>20</sup> The proposal advanced by several authors (e.g., Murtonen, *Broken Plurals: The Origin and Development of the System*, p. 33; J. Kurylowicz, *Studies in Semitic Grammar and Metrics* [London, 1973], p. 144; F. Corriente, *Problemática de la pluralidad en semítico* [Madrid, 1971], p. 96; W. Fischer, "Die arabische Pluralbildung," *Zeitschrift für arabische Linguistik* 5 [1980]: 70–80) that the feminine plurals of group (2) have developed from the collective-singulative type historically cannot, however, be maintained. The collective-singulative pattern is still recognizable as a category formally distinct from the feminine group (2)

plurals in all of the older (by attestation) West Semitic languages. And a clear distinction between feminine plurals formed by loss of feminine suffix and vowel insertion, on the one hand, and unmarked collective nouns with corresponding singulatives formed by addition of a feminine suffix, on the other, is maintained in a number of Berber and Cushitic languages. Further, true collectives subject to singulative formation, wherever they are found in Afroasiatic languages, have a semantic range restricted to the names of animals, plants, and their products.

The answer to the first question is that only the ancient and modern languages of South Arabia and North Ethiopia show a range of allomorphic variation in the form of the internal plural comparable to that of Arabic. In order to answer the second question (and if necessary the third), we have to have the same sort of statistical distributional analysis as has been done for Arabic. For Old or Epigraphic South Arabian (OSA), specifically Sabaic and for two Modern South Arabian (MSA) languages, Harsusi and Jibbali, I have recently done such an analysis based on counting singular-plural pairs in the available dictionaries—for Sabaic, those of J. Biella<sup>21</sup> and of A. F. L. Beeston, M. A. Ghul, W. W. Müller, and J. Ryckmans<sup>22</sup> and for the two MSA languages, the dictionaries of T. H. Johnstone.<sup>23</sup> For Ge<sup>c</sup>ez, I rely on W. Leslau's *Comparative Dictionary of Ge<sup>c</sup>ez*<sup>24</sup> but counted only the forms of the base CVCC and CVCVC nouns, since otherwise plurals are predictable according to the available reference grammars.<sup>25</sup> For Tigre, I rely on the analysis given by S. Raz,<sup>26</sup> supplemented by a count of base noun plurals based on the information given in Palmer's study of the Tigre noun.<sup>27</sup> There is some latitude for interpretation in MSA because of complicated vowel correspondences<sup>28</sup> and in OSA because of the absence of vowel notation. The answer to the second question ("Is allomorphy a function of stem class?") turns out to be yes, as indicated in Tables 3–7, below, and the accompanying discussion. The answer to the third question (regarding formal similarity of corresponding classes) is discussed in section IV below.

TABLE 3a

The Ge<sup>c</sup>ez System<sup>29</sup>

(1) CaCC	→	ᵃaCCaaC, CaCaC, sfp.
CaCC	→	ᵃaCCaaC, ᵃaCCəCt, sfp., (ᵃaCCəC, ᵃaCCuuC)
CaCaC	→	ᵃaCCaaC, sfp. ᵃaCCuuC
(2) CVCVCt	→	sfp. [=CVCVCtaat, CVCVCaat]
(3) CVCCVC	→	CaCaaCaCt, CaCaaCaC
CVCCVCt	→	CaCaaCaC
(4) CVCVVC	→	CawaawaCt, CaCaawaC, CaCaayaC
(5) CaCaaCii	→	CaCaCt
(6) CaCiiC, CaCaaC	→	CaCaCt
CVCaC(n)	→	sfp.

<sup>21</sup> J. Biella, *A Dictionary of Old South Arabic, Sabaean Dialect*, Harvard Semitic Studies 25 (Chico, California, 1982).

<sup>22</sup> A. F. L. Beeston, M. A. Ghul, W. W. Müller, and J. Ryckmans, *Sabaic Dictionary (English-French-Arabic)*, Publication of the University of Sanaa, Yemen Arab Republic (Louvain-la-Neuve and Beirut, 1982).

<sup>23</sup> T. M. Johnstone, *Harsusi Lexicon and English Harsusi Word-List* (London, 1977); and idem, *Jibbali Lexicon* (London, 1981).

<sup>24</sup> (Wiesbaden, 1991).

<sup>25</sup> I.e., A. Dillmann, *Grammatik der äthiopischen*

*Sprache*, 2d ed. (Leipzig, 1903), and T. O. Lambdin, *Introduction to Classical Ethiopic (Ge<sup>c</sup>ez)*, Harvard Semitic Studies 24 (Missoula, Montana, 1978).

<sup>26</sup> S. Raz, *Tigre Grammar and Texts* (Malibu, 1983) [cited hereafter as *Tigre Grammar*].

<sup>27</sup> F. R. Palmer, *Morphology of the Tigre Noun* (Cambridge, 1962).

<sup>28</sup> See Johnstone, "The Modern South Arabian Languages," *Afroasiatic Linguistics* 1/5 (1975): 1–29 (= 93–121), for the fullest available discussion.

<sup>29</sup> The abbreviation 'sfp.' indicates 'sound feminine plural'.



TABLE 3b

Ge<sup>c</sup>ez Examples

(1) ʔəzn	→	ʔəzan	"ear"
ʕayn	→	ʔaʕyənt	"eye"
wagr	→	ʔawgər	"hill"
faras	→	ʔafraas	"horse"
hagar	→	ʔahguur	"town"
(2) Ø			
(3) ʕaqraab	→	ʕaqaarəbt	"scorpion"
(4) wəḥiiz	→	waḥaayəzt	"river"
xaṭiiʔt	→	xaṭaawəʔ, xaṭaayəʔ	"sin"
(5) saraaqi	→	saraqṭ	"thief"
(6) ʕabiiy, ʕabaay	→	ʕabayt	"great"

Discussion: the Ge<sup>c</sup>ez short central vowel /ə/ corresponds regularly with the Arabic short high vowels /i/ and /u/. The Ge<sup>c</sup>ez long vowels and short /a/ correspond with the similar vowels in Arabic. Thus although the Ge<sup>c</sup>ez ʔACCəCt could be interpreted as cognate with Arabic ʔaCCiCat,<sup>30</sup> distributional analysis shows that it is not. Arabic ʔaCCiCat derives from singulars CvCaaC. Since Ge<sup>c</sup>ez ʔACCəCt derives exclusively from singulars CaCC, it is best interpreted as related to other plurals associated with this singular type—i.e., ʔaCCəC (= Arabic ʔaCCuC) and ʔaCCuC (= \*ʔaCCuuC). It thus must reflect historical ʔaCCu(u)C-t, with a long or short /u/ vowel plus pleonastic /t/. Note too that the Ge<sup>c</sup>ez CəCaC, which is a group (1) masculine plural, does not correspond with the phonologically cognate Arabic group (2) feminine Ci/uCaC plural.

TABLE 4a

The OSA (Sabaic) System

(1) CCC	→	ʔCCC, CCC, CCCt
(2) CCCt	→	CCC
(3) CCCC	→	CCCCt, CCCC
CCCCt	→	CCCC
(4) CCC	→	CCCwC(t), CCCyC(t)
CCC	→	CwCC
(5) CCC	→	CCCt, CCC
(6) CCC	→	ʔCCCw, CCCw
CCC	→	ʔCCCt

<sup>30</sup> As suggested, for example, by Murtonen, *Broken Plurals: The Origin and Development of the System*, p. 27.

TABLE 4b

OSA Examples

(1) ʔðn	→	ʔðn	"ear"
hgr	→	ʔhgr	"town"
ʔb	→	ʔbh, ʔbw	"father"
(2) ʔlt	→	ʔll	"roofed tomb"
ḥrt	→	ḥyr	"encampment"
(3) mḥfd	→	mḥfdt	"tower"
tbjrt	→	tbjrt	"announcement"
(4) xṭʔ	→	xṭyʔ	"sin"
xrf	→	xrwf, xryf(t), (ʔxrft)	"year"
ʔmr	→	ʔwmr	"sign"
(5) rkb	→	rkbt, rkb	"rider"
(6) xrf	→	ʔxrft (xrwf, xryf(t))	"year"
rbb	→	ʔrbbw	"person under protection"
ḥsr	→	ḥsrw	"steersman" (Höfner)
			"poorer class" (Beeston)

Discussion: in the absence of vowel notation, the plural patterns of OSA must be interpreted in light of Geʿez and Arabic. In the context of a discussion of subclassification, this approach is admittedly somewhat circular. In essence, we assume that it is a priori plausible that the OSA system is similar to that of Geʿez or Arabic unless the evidence forces a contrary interpretation. Thus we assume that where an OSA plural form written only with consonant signs *can* be interpreted as reflecting a plural pattern found in the same distribution in Geʿez or Arabic, it *should* be so interpreted. Only the existence of OSA forms which could not possibly be interpreted as cognate with corresponding patterns in Arabic or Geʿez would allow us to assume that the OSA system had developed along independent lines. (In fact, there are no examples of such forms.)

Group (1): OSA ʔCCC most plausibly reflects Geʿez and Arabic ʔaCCaaC but could also reflect Geʿez and Arabic ʔaCCuC or Geʿez (and Tigre) ʔaCCuuC; compare Geʿez *hagr* → ʔahguur "town" with the second example in Table 4b above. That OSA also had a group (1) plural without an alif-prefix like Arabic CvCaaC or Geʿez CvCaC is most apparent in plurals of biradicals which show a default third consonant (here /h/), such as ʔb → ʔabh; compare Geʿez ʔab → ʔabaw.

Group (2): that OSA like Arabic, Tigre, and MSA but unlike Geʿez, had an internal plural for feminine base nouns is apparent from alternations involving nouns with final geminate or medial-glide radicals like those in the examples above. Thus ʔlt → ʔll is plausibly reconstructed as \*ʔvllat → \*ʔvllal, and ḥrt → ḥyr as \*ḥairat or \*ḥeerat → \*ḥvyar.

Group (4): comparison of the OSA singulars which show these plurals with cognates in other languages combined with semantic analysis of the words involved shows that most of the singulars must be of the CvCvVC type (for the examples above, compare Arabic *xariifun* "autumn," Geʿez *xariif* "year," Arabic *xatīʔat* → *xaṭaayaa*, Geʿez *xatīʔt* → *xaṭaayeʔ*, *xaṭaaweʔ* "sin"). Thus the most cautious assumption is that plurals CCyC(t) and

CCwC(t) reflect CaCaaGvC(vt), which is the productive plural for singulars of this type in Arabic, Ge<sup>c</sup>ez, and Tigre. An alternative interpretation of these forms as reflecting \*CvCiiC or \*CvCuuC plurals is suggested by M. Höfner<sup>31</sup> on the basis of similarity of form without regard for distributional correspondences. Ignoring the philological problem of whether OSA graphs transliterated 'y' and 'w' can be interpreted as reflecting long vowels.<sup>32</sup> The difficulty for this interpretation is that CvCiiC does not appear as a productive plural in any Semitic language, and CuCuuC appears only in Arabic but not as a plural for CvCvC nouns. Höfner's analysis would thus force us to assume that the OSA system was closer to Arabic than to Ge<sup>c</sup>ez but basically quite different from either.

Group (5): for CCC nouns which are semantically active participles, plurals with suffix 't', presumably cognate with Arabic CaCaCat or Ge<sup>c</sup>ez CaCaCt, are attested. Apparent plurals of participles with no overt mark—CCC, indicate that an alternative internal plural may have existed in this class, possibly cognate with Arabic CuCCa(a)C.

Group (6): a handful of plurals with final 'w' are the only plausible cognates throughout southern Semitic to the Arabic plurals CuCaCaa<sup>u</sup>, <sup>2</sup>aCCiCa<sup>u</sup>.<sup>33</sup> Again based on semantics and comparison of cognates, the OSA singulars which take these plurals can be analyzed as having the pattern CaCiiC. (The cognates to *xrf* have been noted. For *rbb*, compare Arabic *rabiibun* → <sup>2</sup>*aribbaa<sup>u</sup>* "step-child.")

TABLE 5a

The Tigre System<sup>34</sup>

(1) CəCəC	→	<sup>2</sup> aCCaaC, <sup>2</sup> aCCuC, (CəCaC)
CaCaC	→	<sup>2</sup> aCaCCəC(at), <sup>2</sup> aCCəC(t), <sup>2</sup> aCCaaC, <sup>2</sup> aCCuC
CaCaC	→	<sup>2</sup> aCCuC, <sup>2</sup> aCaCCəC(at), <sup>2</sup> aCCaaC;
(2) CəCCat	→	CəCaC
CaCCat	→	CəCaC, CəCaaC
CaCaCat	→	CəCaaC
(3) CVCCVC	→	CaCaaCəC, CaCaCCəC
CVCCVVC	→	CaCaaCiC, CaCaaCuC
(4) CVVCVC	→	CawaCCəC, CawaaCəC
CVCVVC	→	CaCaayəC
(5) CaaCəC	→	sfp.
CaaCCay	→	CaaCCat
(6) CəCaaC	→	<sup>2</sup> aCəCCat, (CəCəC)

<sup>31</sup> *Altsüdarabische Grammatik* (Leipzig, 1943), p. 103.

<sup>32</sup> See Beeston, *A Descriptive Grammar of Epigraphic South Arabian* (London, 1962), p. 5, for dis-

cussion of this point.

<sup>33</sup> Although there is a possible E Semitic parallel; see below.

<sup>34</sup> The transcription is that of Raz's *Tigre Grammar*.



TABLE 5b

## Tigre Examples

(1)	mədər	→	ʔamdaar, ʔamdaaraat	"land"
	warəḵ	→	ʔawarrəḵ	"silver"
	ḵabər	→	ʔaḵbər(t)	"tomb"
	daḵal	→	ʔadkul	"mast" <sup>35</sup>
(2)	ḥəfrat	→	ḥəfar	"hole"
	karfat	→	kəraʃ	"belly"
	ḵarbat	→	ḵəraab	"water skin"
(s/c)	nəḥbat	←	nəḥəb	"bee"/"bees"
(3)	janjar	→	janaajər	"chain"
	dərfən	→	daraffən	"ram"
(4)	mezan	→	mawazzən	"scales"
	wəḥiz	→	wəḥaayəz	"river"
(5)	kaadmaay	→	kaadmat	"worker"
(6)	səgaad	→	ʔasəgdət	"neck"

Discussion: Tigre /ə/ corresponds to Arabic short /u/ and /i/. Tigre /i/ and /u/ correspond to Arabic long /ii/ and /uu/. Reflexes of an older singulative/collective pattern, labeled (s/c) in Table 5a, are still sometimes distinguishable by analysis from the reflexes of the group (2) feminine plurals. However, the requirement that stem final CC clusters be broken up by an epenthetic vowel means that, in effect, the two classes have merged. Tigre has ʔaCəCCat corresponding to Arabic group (6) ʔaCCiCat and ʔaCCəC(t) (where the /t/ appears only in juncture), corresponding to Geʿez group (1) ʔaCCəCt. An interesting development is the compensatory gemination (geminales indicated by underlining>, which sometimes substitutes for original vowel length CVV . . . → CVC . . . in plurals of groups (1), (3), and (4).

TABLE 6a

## The Harsusi System

(1)	*CVCC	→	CeCeeC, CeCooC, CeCewweC, eCCooC
(2)	CVCCe(e)t	→	CeCeCten, CeCaCten
	CVCCAat, -oot	→	CeCeeC, CeCaC, CeCooC
	CVCeCe(e)t	→	CeCeeC
(3)	CVCCV(V)C	→	CeCooCeC, CeCooCeCet
	CVCCiiC	→	CVCCooC
(4)	CVVCVC	→	CewVVCeC, CewVCCeC
	CVCVVC	→	CeCaayeC, CeCayyeC, CeCawweC
(5)	CeeCeC	→	CeCeCet (m), sfp.
(6)	CeCiiC	→	CeCooC
	CeCiiC, CeCeCet	→	CeCeeC
	CeCeC, CeCeCet	→	CeCeeC

<sup>35</sup> Change of consonant quality in the original.

TABLE 6b

## Harsusi Examples

(1)	bark	→	bereek	"knee"
	kawb, kob	→	keloob	"wolf"
	ħamθ	→	eħmooθ	"lower belly"
	ħarf	→	ħerewwef	"gold coin"
	ħoobel	→	ħebewwel	"hobbling rope"
(2)	febdeet	→	febadden	"liver"
	kezebet	→	kezeeb	"coconut"
	heşkoot	→	heşook	"rope"
(s/c)	nexeleet	←	nexel	"date palm"
(3)	menxel	→	menooxel	"sieve"
	meşheţoot	→	meşaħħet	"slaughtered beast"
	kebkiiib	→	kebkooob	"star"
(4)	yooreb	→	yewooreb	"base of the neck"
	yaaber	→	yewabber	"pregnant she camel"
	meysiig	→	meysiayeg	"camel with young"
	ðeraa	→	ðerawwet	"forearm"
(5)	keehen	→	kehenet	"clever"
(6)	refiif	→	refoof	"horse's mane"
	keşiir, keşeret	→	keşeer	"short"
	xefef, xefefet	→	xefeef	"light"

Discussion: in Harsusi original long /aa/ usually appears as /oo/ or /ee/. Original short stressed /a/ may also appear as /oo/, as in *ħoobel*; compare Arabic *ħabl*. The sequence /ewwe/ may reflect original long /uu/.<sup>36</sup>

Group (1): a count of the forms in Johnstone's *Harsusi Lexicon* turned up 129 singulars which can reasonably be assumed to reflect historical CVCC or CVCVC types. This number includes all synchronic CVCC and CVCVC nouns, biradicals CVC and CVVC which have a triconsonantal plural (reflecting geminates and forms with medial glide or liquid, respectively), and a number of CVVCVC nouns, reflecting nouns with original short stressed /a/ in the first syllable. Of these, the overwhelming majority (74) had a plural with a CVCVVC template. There were only 14 examples of plurals with an initial vowel VCCVVC. The second most common plural type for singulars of this class (29 examples) is CeCewweC, which is plausibly cognate with Arabic CuCuuC. All of the singulars which take this last plural appear to reflect historical CaCC or CaCaC.

Group (2): the feminine suffix (Proto-Semitic \*-at) is subject to the changes affecting /a/ vowels and thus may appear in Harsusi as -et, -eet (with phonetically conditioned variants -iit, -ayt), -oot, and -aat, as well as -eh in words borrowed from Arabic. The forms of the plural correlate fairly closely with those of Arabic. One common plural type has no suffix and an inserted vowel, usually long /ee/ (variants /aa/, /ii/), occasionally short /e/ or /a/, rarely long /oo/ (CeCeeC, CeCooC, CeCaC). There is also a mixed type which has an inserted short vowel /a/ or /e/ and the feminine plural suffix -ten (CeCaCten, CeCeCten). There are also plurals with this feminine suffix only and some with no overt marker of plurality except the absence of the feminine singular suffix. The last group possibly reflects original collectives.

<sup>36</sup> See Johnstone, "The Modern South Arabian Languages," p. 10.

Contrary to what is expected on the basis of Arabic, it is the quality of the vowel of the suffix of the singular, rather than that of the singular stem, which tends to determine the form of the plural. Most singulars CVCCeet, CVCCayt, or CVCCiit show a mixed type CVCaCten or CVCeCten (34 of 44 examples). Singulars with an *-oot* or *-aat* suffix tend to have the internal type. The plural CeCooC is associated exclusively with singulars with a suffix *-oot*.

Group (3): Harsusi commonly has a plural CeCooCeC(et) for masculine quadrilaterals CVCCVC and a plural CeCeeCeC or CeCooCeC for feminines CVCCVCVt. These forms reflect the regular southern Semitic quadrilateral plural CaCaaCiC(at). There are also forms with intercalated /aa/—CeCaaCeC and CeCaaCiiC, possibly borrowed from Arabic. There are a very small number of plurals CeCaCCeC with reduplicated consonant rather than long vowel, as in Tigre. In addition to these forms, Harsusi has an innovative form with alternation of the final stem vowel /ii/ (/ay/) → /oo/. Nearly 90 percent (35 or 39) of quadrilaterals with a long /ii/ vowel in the final syllable CVCCiiC have the plural CeCCooC.

Group (4): there are a few examples of the type 4a plurals (CVVCVC → CawaaCiC) in Harsusi. Some of these show a geminate third consonant (\*CawaCCiC) rather than a long vowel. There are also a few examples of type 4b (\*CaCaaGiC) from CVCVVC singulars. Again, geminate as well as long vowel types are attested.

Group (5): singulars with the CVVCVC pattern in Harsusi show a variety of plural forms. Yet from a historical point of view, nouns of this pattern do not form a coherent class. There is a set of adjectives (and a few nouns) of the form CeeCeC which appear to reflect active participles \*CaaCiC. The masculine plural is CeCeCet, reflecting \*CaCaCat. Nine examples were found, some of which seem to be borrowed from Arabic nouns of the CaaCiC pattern.

Group 6: for CVCVVC singulars, the pattern CeCiiC → CeCooC or CeCyooC (= \*CaCiiC → CiCaaC) is well attested for nouns (16 examples) as well as adjectives. The adjective type CaCiiC is reflected in two patterns in Harsusi CeCiiC (10 examples) and CeCeC (23 examples). For both, the feminine has the form CeCeCet and the masculine plural has the form CvCvvC, usually vocalized CeCeeC, alternatively CeCooC.

TABLE 7a

The Jibbali System

(1) CVCC	→	vCCə/ε/uC, CVCə/ε/uC
CaCC	→	εCCeCt
(2) CVCCet	→	CVCəCtə
CVCCVt	→	CVCVC
(3) CVCCiC	→	CVCCuC, (CVCεbCəC)
CVCCeC	→	CVCCəC, (CVCεbCəC, CoCoCuC)
CVCCVC	→	CVCεbCəC
CVCCVC(V)t	→	CoCoCuC
(4) ∅		
(5) CoCVC	→	CVCεCt
(6) *CVCaaC	→	εCCeCVt, CVCəC, CVCCəCə
*CVCiiC	→	CVCεCt
CVCiC	→	CVCiCεh



TABLE 7b

## Jibbali Examples

(1) bɛrk	→	ɛɛrɔk	"knee"
ħarf	→	ʔħrɔf	"gold coin"
kɔb	→	kɔlɔb	"wolf"
ħamθ	→	ahmɔθt	"lower belly"
bekər	→	ɛbkert	"animal with one young"
(2) zɛfret	→	zɔfɔrtə	"tress"
ka <sup>c</sup> let	→	ka <sup>c</sup> el	"swollen testicle"
C) təmɾet	→	tūr	"date palm"
(3) mɔħfer	→	mɔħɔfur	"basket"
kəbkəb	→	kəbkɔb	"star"
mɔnxul	→	mɔnɛbxəl	"sieve"
(5) gohul	→	ghɛlt	"ignorant"
(6) bəkər	→	ɛbkɪrət	"pile"
širɔx	→	širxətə	"root"
miger	→	mɔgər	"skin for milk"
xɪfɪ, xɪft	→	xɪft	"light"
šhid	→	šhidɛh	"witness"

Discussion: distinctive vowel length is lost in Jibbali. Long /aa/ appears to be generally reflected as /ɔ/, /o/, or /ɛ/. The phoneme /b/ is deleted intervocalically.

Group (1): in contrast to Harsusi, Jibbali shows a pattern of plural formation for masculine base nouns which is much closer to Ethiopian Semitic than to Arabic. The most common plural types have a pattern VCCVC (62 or 207 examples in Johnstone's *Jibbali Lexicon*) or CVCVC (also 62 examples), with inserted vowel /ɔ/, /ɛ/, /u/, more rarely /e/, /i/ (a in guttural environment only), thus ɔCCɔC, ɛCCɔC, ɛCCɛC, ɛCCuC, CVCɔC, CVCɛC, CVCuC. Belonging to the same category are plurals which Johnstone records as having neither an initial vowel nor an epenthetic vowel to break up the initial consonant cluster CCɛC, CCEC (25 examples). These forms all seem to go back to CVCaC and <sup>2</sup>aCCaC but could also reflect forms with inserted /u(u)/ or short /a/. The third most common plural form in this class (28 of 207 examples) has the template ɛCCɛC(V)t, which appears to reflect a plural pattern found frequently for nouns of this class in Ge'ez but not in Arabic and seemingly not in OSA or Harsusi. Finally, the sound feminine plural is not uncommon for nouns of this class (30 or 207 examples) but usually derives from weak root or biradical singulars and often is accompanied by stem vowel change.

Group (2): in Jibbali, the feminine singular suffix appears as *-et*, *-ɛt*, *-at*, and *-ɔt*. To an even greater extent than in Harsusi, there is a high degree of correlation between the quality of the suffix vowel and the form of the plural. Singulars CVCCet strongly favor (22 of 30 examples) the mixed type CeCɔCtə, with inserted /ɔ/ vowel and feminine plural suffix *-tə*. (There are two examples of an alternative form with /u/ vowel inserted: CVCCit → CVCuCtə.) An internal plural type CVCVC (where the intercalated vowel is usually /ɛ/, /e/, /a/, occasionally /ɔ/, /o/, or /u/, and often identical with the vowel of the *-Vt* suffix) is preferred for singulars CVCCet (52 of 59 examples), CVCCɔt (26 of 27), and CVCCat (11 of 11).

Group (3): for quadriliteral singulars, Jibbali has three distinct types of plural formation: (1) the common southern Semitic \*CaCaaCiC type with the long /aa/ of the second

syllable reflected as /o/, /ɔ/, /u/, or very rarely /ɛ/; (2) a form derived by alternation of the vowel of the final syllable CVCCe/aC → CVCCoC and CVCCɛ/iC → CVCCuC, comparable to the CVCCiC → CVCCooC type of Harsusi; and (3) a form CVCVbCVC with infix -Vb- (-ab- or -ɛb-) between the second and third radical. The reflex of the expected quadriliteral type CoCoCuC is actually quite rare for masculines in Jibbali, though common for feminines.

Group (4): there appear to be no reflexes in Jibbali of the type 4 (CaGaaCiC, CaCaaGiC) plurals which are so prominent in other southern Semitic languages. This reflects the fact that synchronically there are no CVCVVC or CVVCVC patterns, since contrastive vowel length has been lost in Jibbali.

Group (5): the reflex of the participial form CaaCiC usually has the pattern CɔCəC in Jibbali. The vowel of the first syllable may be /o/ or /u/, and the vowel of the second syllable may be /u/. The most common plural for adjectives of this pattern is CVCəCt or CVCaCt, reflecting CaCaCat (9 examples).

Group (6): Jibbali, like Tigre, maintains a distinction between group (1) plurals like ɛbkert, corresponding with the Ge'ez ʔaCCəCt type and group (6) plurals like ɛbkirət, corresponding with the Arabic ʔaCCiCat type. Adjectives CaCiiC are reflected in Jibbali as CCiC, feminine CCiCt. The plural is the same as that for the participial type, CVCəCt reflecting CaCaCat (31 examples). For nouns CVCiC, a pattern CVCiCəh or CiCCəh, similar to Arabic CuCaCaaʔ, ʔaCCiCaaʔ is attested. It appears, however, that all the nouns which take this plural are legal or religious terms borrowed from Arabic.

### III.2.3 NW Semitic

In NW and E Semitic an external plural is general, with different forms for the masculine and feminine. In Biblical Hebrew, there are two widespread exceptions to this general rule: (1) the plurals of underlying CVCC (termed 'segolate') nouns regularly show an inserted 'a'-quality vowel (qomes) between the second and third consonant in the plural form; (2) there is a class of feminine singulars with masculine plurals which appear to go back to older patterns of opposition between singulatives marked with an -at suffix and unmarked collectives. The second pattern is found also in Aramaic, and there is sufficient internal evidence that an older form of Aramaic had the rule of -a- insertion in segolate plurals as well.<sup>37</sup>

TABLE 8a

Productive Exceptions to Suffix Pluralization in Hebrew<sup>38</sup>

Surface			Reconstructed		
(1)	CvCeC	→	CəCəCim	*CvCC	→ *CvCaC+iim
(2)	CvCCā	→	CəCəCōt	*CvCCat	→ *CvCaC+aat
(s/c)	CvC(v)Ca	→	CvC(v)Cim	*CvC(v)Cat	← *CvC(v)C(+iim)

<sup>37</sup> F. Rosenthal, *A Grammar of Biblical Aramaic* (Wiesbaden, 1983), p. 27.

<sup>38</sup> Data comes from C. V. Wallace, "Broken and Double Plural Formations in the Hebrew Bible" (Ph.D.

diss., New York University, 1988), supplemented by data in Brockelmann, *Grundriß*, pp. 430 ff. Transcription follows that of Wallace. Examples from Brockelmann have been retranscribed to accord with this norm.

TABLE 8b

## Hebrew Examples

(1)	melek	→	mēlākîm	*malk	→	*malakiim	"king"
	sēper	→	sēpārîm	*sipr	→	*sipariim	"book"
	qōdeš	→	qodāšîm	*qudj	→	*qudajiim	"sanctuary"
(2)	malkā(h)	→	mēlākôt	*malkat	→	*malakaat	"queen"
	šiphā(h)	→	šēpāhôt	*šiphat	→	*šipaḥaat	"maid"
	°orlā(h)	→	°ōrālôt	*°urlat	→	*°uralaat	"foreskin"
(s/c)	bēšā(h)	→	bēšîm	(Ar. baidat	←	baid)	"egg"
	nēmālā(h)	→	nēmālîm	(Ar. namlat	←	naml)	"ant"
	šē°orā(h)	→	šē°ōrîm	(Ar. fa°iirat	←	fa°iir)	"barley"
	timmōrā(h)	→	timmōrîm,	(Ar. tamrat	←	tamr)	"date palm"
			timmōrôt	(pl. tamaraat, tumuur)			

Several Hebrew scholars, namely, C. V. Wallace, J. Huehnergard, and A. Corré, have in recent work<sup>39</sup> renewed the argument for a historical connection between plural forms like those labeled (1) and (2) in Table 8b and the 'broken' plurals of southern Semitic. The central claim of the argument is that the /a/ in the plural forms like those of (1) and (2) in Table 8b is an original plural marker inherited from Proto-Semitic and that the plural suffix is historically secondary. The central evidence in support of this claim is the internal evidence of Biblical Hebrew itself. If the intercalated /a/ is historically primary, then the plural suffix must be the result of an analogical extension of a pleonastic plural marker to a form which was already plural. Such an extension has occurred elsewhere, notably in the collective forms like those labeled (s/c) in Table 8b. These were originally semantically plural but morphologically unmarked. It would appear that such an extension has also occurred in a handful of words which have a plural suffix *-ân* or *-ôn* (*°izbônîm* "wares").<sup>40</sup> By contrast, the development of a secondary /a/ in these forms would be an inexplicable nonce development without motivation and without parallel. There is nothing in the phonology of Biblical Hebrew which would predict an epenthetic vowel in the environment in which /a/ appears in the segolate plurals.<sup>41</sup> This insertion of /a/ occurs only in one *morphologically* defined environment. Therefore, there is no internal evidence for the development of the intercalated /a/ here as a result of conditioned sound change.<sup>42</sup>

<sup>39</sup> Wallace, "Broken and Double Plural Formations in the Hebrew Bible"; Huehnergard, "Remarks on Classification"; and A. Corré, "Hebrew—Some Modest Proposals," in Kaye, ed., *Semitic Studies in Honor of Wolf Leslau*, pp. 245–51.

<sup>40</sup> Wallace, "Broken and Double Plural Formations in the Hebrew Bible," p. 82.

<sup>41</sup> A. Prince, "The Phonology and Morphology of Tiberian Hebrew" (Ph.D. diss., Massachusetts Institute of Technology, 1975), p. 42.

<sup>42</sup> For a survey and analysis of the many proposals that have been advanced to account for the development of the Hebrew segolate plurals, see Wallace, "Broken and Double Plural Formations in the Hebrew Bible," pp. 1–34. It is important that we not get distracted by this issue here. Historical linguistics is

largely an exercise in plausibility and inference. Given a set of data where there is more than one plausible interpretation, we cannot simply precede by adopting the interpretation most favorable to the hypothesis we are trying to test. Ideally, one looks for generalizations which are valid over all plausible interpretations of data. In practice, this often can be accomplished simply by adopting the interpretation which is most *damaging* for the hypothesis to be tested. For this reason, I fully embrace Wallace's interpretation of the Hebrew plural anomalies as retentions from an older (Proto-Semitic or Proto-Afroasiatic) system of plural formation by stem internal change. If these anomalies can be shown to be the result of innovations within Hebrew or NW Semitic, the hypothesis of SW Semitic unity can only be strengthened.

Beyond the productive and well-attested patterns represented above, there are a number of other possible remnants of broken plurals in Biblical Hebrew. Wallace has recently attempted to identify these on the basis of a thorough study of the Hebrew text of the Bible, in the process clearing up a number of errors and misunderstandings that crept into older accounts. Most interesting is what Wallace does not discover. First, there are no irregular plurals of participles in Biblical Hebrew,<sup>43</sup> in other words no correspondents to the group (4), (5), and (6) plurals of southern Semitic. Secondly, there are no plurals with word initial glottal stop like those found so extensively in southern Semitic.<sup>44</sup>

What Wallace does find, however, are a number of cases of plausible remnant plural forms with an intercalated high vowel rather than /a/, that is, patterns CvCuuC and CvCiiC. Wallace gives 11 examples of apparently plural CvCiiC patterns. Seven of these also have a plural suffix, 4 do not. She judges as most compelling the example *pesel* → *pēsîlîm* "idol," which occurs "throughout the Old Testament . . . more than a dozen times in both singular and plural," and for which the expected /a/ type segolate plural (\**pēsālîm*) does not occur.<sup>45</sup> Wallace gives 8 examples of possible remnant plurals with /u/. All of these occur without a plural suffix. Some examples are given in Table 8c.

TABLE 8c

Hebrew Remnant CvCuuC Plurals (?)

		CVCu <sub>u</sub> C(at)	
ʿēḇed "slave"	ʿăḇudda(h)	*ʿabuddat	"household retinue" <sup>46</sup>
geḇer "man"	gēḇûra(h)	*gvbuurat	"heroes"
	gēḇûl	*gvbuul	"border"
zākār "man"	zēkûr	*zvkuur	"men"

These forms are particularly interesting. The existence of 'dissimilatory' plural with a high vowel, usually /u/—i.e., CvCuuC—from singulars CaCC or CaCaC, is the only feature shared by the southern Semitic languages but not shared (productively) by NW Semitic, which is well-attested in non-Semitic Afroasiatic, as we will discover in the next subsection. Thus the existence of these apparent remnant forms in Hebrew conforms with expectations derived from pan-Afroasiatic comparisons. In the context of the subclassification issue, it is worth noting that these forms do not show a particularly close formal resemblance to patterns found in Arabic as opposed to those found in other southern languages. The pattern CaCiiC is not a productive plural form in Arabic (*pace* Wallace),<sup>47</sup> although it is associated with a handful of common words such as ʿabdun → ʿabiidun "slave,"

<sup>43</sup> "The other category [beside cases of complete suppletion] that will not be dealt with here is participles. These do not form irregular plurals in BH. . ." (Wallace, "Broken and Double Plural Formations in the Hebrew Bible," p. 3).

<sup>44</sup> "What is extraordinary is that plural formations with preformative ʾ do not exist in B[iblical] H[ebrew], whereas these formations are exceedingly common in Arabic and Ethiopic" (ibid., p. 20).

<sup>45</sup> Ibid., p. 45.

<sup>46</sup> The regular Plural ʿăḇādîm also occurs; see Wallace, "Broken and Double Plural Formations in the Hebrew Bible," p. 77.

<sup>47</sup> Murtonen's sample includes 16 examples of plural CaCiiC (8 from singular CaCC, 8 from six other types), as opposed to 710 examples of plural CuCuuC (399 from singular CaCC) and 1,308 examples of plural ʾaCCaaC (312 from singular CaCC).



*ḥimaarun* → *ḥamiirun* (but also *ʾaḥmiratun*) “donkey.” All of the forms with /u/ vowel in Table 8c can perhaps be taken as reflecting an older CvCuuC pattern subject (irregularly) to two essentially analogical changes: addition of a pleonastic *-at* suffix (a widely attested development throughout southern Semitic but particularly in Ethiopian Semitic) and gemination of a consonant to compensate for a long vowel. The last development never appears in Arabic but is common in Tigre and is attested also in MSA.

More problematic are the possible cognates to the southern Semitic group (3) CaCaaCiC plurals which Wallace brings forward. There are three of these—*qəlôqəl* “worthless, light, miserable,” *šəlâšal* “whirling locust,” and *ʿarôʿer*, a place-name.<sup>48</sup> None of these words has an indisputably plural sense. Moreover, the nature of the data—two *hapax legomena* and a place-name—is consistent with an interpretation in terms of borrowing and inconsistent with an interpretation of the forms as a residue of a productive process of derivation in the language. Even if we overlook these objections and admit the pattern as a remnant plural, there remains a crucial difference in distribution of this Hebrew pattern and the southern Semitic group (3) plurals. The Hebrew pattern is restricted to reduplicated bi-radicals, while the southern Semitic group (3) CaCaaCiC plural is the productive and regular plural for four consonant nouns of all types, notably various forms with an *mV-* prefix.

### III.2.4 Akkadian

Akkadian presents even fewer exceptions to the rule of external pluralization than do the NW Semitic languages. For mono- and biconsonantal nouns, Akkadian shows the phenomenon of ‘augmentation’ or addition of default consonant in the plural *axum* → *axxuu* “brother.”<sup>49</sup> This is a pan-Semitic, and indeed pan-Afroasiatic, anomaly of plural formation, which I have discussed and attempted to explain elsewhere.<sup>50</sup>

J. Huehnergard identifies a class of the adjective plurals in Akkadian, with a suffix plausibly interpreted as *-āʾ*, which he connects with Arabic plurals CuCaCaaʾu (← CaCiiC).<sup>51</sup> The Akkadian forms do not show stem internal change, however, as the Arabic forms do. Nonetheless, in light of this evidence, we cannot rule out the possibility that the final *-aaʾu* sequence on the Arabic form reflects an inherited Proto-Semitic adjective plural suffix. In any case, the existence of this plural type is not an important isogloss for the hypothesis of SW Semitic unity, first because the form is found only in the Arabian peninsula languages Arabic and (seemingly) OSA, second because the restricted distribution of the form (to a closed class of nouns in Arabic, to no more than four examples in OSA) would, even without the Akkadian evidence, lead us to suspect that this is a retention rather than an innovation.

### III.2.5 Other Afroasiatic

One of the strongest reasons for assuming that some form of stem-internal plural is reconstructable for Proto-Semitic is that stem-internal plurals are found in non-Semitic

<sup>48</sup> Wallace, “Broken and Double Plural Formations in the Hebrew Bible,” pp. 62–64.

<sup>49</sup> W. Von Soden, *Grundriß der akkadischen Grammatik* (Rome, 1952), p. 76.

<sup>50</sup> See my article “Drift and Noun Plural Reduplication in Afroasiatic,” *BSOAS* 59 (1996): 296–311

[hereafter “Drift”].

<sup>51</sup> Huehnergard, “Three Notes on Akkadian Morphology,” in D. Golomb, ed., *Working With No Data: Semitic Studies Presented to Thomas O. Lambdin* (Winona Lake, Indiana, 1987), pp. 181–93.

Afroasiatic languages. Since J. Greenberg<sup>52</sup> first identified these possible parallels, most scholars<sup>53</sup> have taken a 'minimalist' approach—trying to explain away the similarities in terms of independent developments in each language or subgroup. In earlier work,<sup>54</sup> I took a 'maximalist' approach—trying to explain any plural forms which were superficially similar to, or which could plausibly be taken as deriving (historically) from a form similar to, a Semitic internal plural as actually deriving from Proto-Afroasiatic. The main conclusion of this study was that for every aspect of the plural system which NW Semitic and the southern languages (Arabic, Old and Modern South Arabian, and North Ethiopian Semitic) share—internal /a/ in the plural of CVCC nouns, expansion of biradicals to 3C structure in the plural,<sup>55</sup> singulative/collective (CVCCat/CVCC) contrasting with feminine plurals (CVCCat → CVCaC), masculine and feminine forms of the external plural—parallels can be found in one or more Chadic, Berber, or Cushitic language. Yet for those features which the southern languages share against NW Semitic, only the tendency to form /u/ plurals from /a/ singulars finds plausible parallels in non-Semitic Afroasiatic languages; and this feature too is possibly attested in remnant form in Biblical Hebrew. There were no clear cognates of any of the groups (4), (5), (6), or alif-prefix group (1) forms of southern Semitic. Thus even by the most liberal interpretation of the Afroasiatic data (assuming that all of the internal plurals found in some Afroasiatic language which resemble Semitic internal plurals are retentions from Proto-Afroasiatic), the system we would reconstruct for Proto-Afroasiatic is basically identical to the system we would reconstruct for Proto-W Semitic on a conservative interpretation (assuming only shared features are original): that is, a system in which an internal plural marked by an /a/ vowel (subject to dissimilation to /u/ or /i/) in the second syllable was obligatory for bi- and triradical underived nouns and the external plural was obligatory everywhere else.

It is impossible to reproduce all of the relevant data and argument in support of this conclusion in a journal article. A proper evaluation of the evidence from non-Semitic Afroasiatic languages requires consideration of the systems of noun pluralization in each language surveyed in the context of the phonology and morphology of that language, making sure that any proposed deep (i.e., Proto-Afroasiatic) reconstructions are compatible with shallower reconstructions motivated on language internal evidence or comparison among more closely related languages or dialects. In order to give a general idea of the nature of the data involved, however, I will present here a brief survey of the plural systems of one language from each of the Berber, Chadic, and Cushitic groups—Touareg, Hausa, and Afar, respectively. In making this selection, I have restricted myself to languages which have been relatively well described and analyzed by specialists. Subject to this restriction, I have tried to select the language from each group which has the plural system superficially most similar to that found in southern Semitic languages. That is, I have tried to select from each group a language which has both a stem internal plural and a high degree of allomorphy in the plural system.

<sup>52</sup> J. Greenberg, "Internal a-plurals in Afroasiatic," in J. Lukas, ed., *Afrikanistische Studien* (Diedrich Westermann zum 80. Geburtstag gewidmet) (Berlin, 1955), pp. 198–204.

<sup>53</sup> See, for example, K. Petraček, "Die innere Flexion in den semitischen Sprachen," *Archiv Orientální* 28

(1960): 541–606; 29 (1961): 513–45; and 30 (1962): 361–408; and I. Diakonoff, *Semito-Hamitic Languages: An Essay in Classification* (Moscow, 1965).

<sup>54</sup> See my "Broken Plural Problem," pp. 372–628.

<sup>55</sup> The data and an explanation for this 'shared anomaly' of Afroasiatic is presented in my article "Drift."

## III.2.5.1 Touareg (Berber)

It has been observed of the Berber languages that "although there are variations in phonology and lexical items, the features of syntax and morphology are relatively constant."<sup>56</sup> Touareg may thus be regarded as a typical representative of the family, as well as—insofar as it is less influenced by Arabic than the Berber languages spoken north of the Sahara—a conservative representative. Furthermore, we have, in K. Prasse's *Manuel de grammaire Touaregue (Tahaggart)*,<sup>57</sup> an ideal source for present purposes, since Prasse attempts an analysis and partial historical reconstruction of the word forms and derivational patterns of Touareg in terms of the Semitic root and pattern grammar. While this approach sometimes gives the impression of forcing the Berber data into an inappropriate mold, it has the advantage of highlighting very starkly the similarities and differences in morphological structure between Berber and Semitic.

By far the largest groups of plurals in Touareg are marked solely by the suffixes *-än* (m.) and *-în* (f.).<sup>58</sup> Like the sound plurals of W Semitic, this plural type (labeled 'plural class 1' by Prasse) is the only possible plural for nouns productively derived from a verb: "Pour les divers infinitifs . . . et les thèmes et formes verbaux substantivés . . . le pl. 1 est le seul possible."<sup>59</sup> Verbal nouns of agent with prefix *m-*, however, are occasionally (from the Semitic point of view) exceptional in allowing an internal plural (see below).

With regard to plurals marked by internal vowel change, Prasse's initial observation is most revealing:

Les pluriels marqués par une vocalisation altérée—dits pluriels brisés ou internes—sont connus en sémitique aussi. De plus les vocalismes employés à cette fin en berbère se retrouvent probablement tous en sémitique, comme nous le verrons bientôt. Cependant le sémitique connaît en outre des vocalismes non employés en berbère, notamment le vocalisme *ǔ-ǔ* et *ā-ā-ī* des quadrilitères.

Le préfixe <sup>2</sup>*a-* de certains pluriels brisés sémitiques (p. ex. <sup>2</sup>*aBCâD*) est également inconnu au berbère.<sup>60</sup>

In other words, there are no plurals resembling the most productive forms of southern Semitic, those I have labeled groups (3) and (4) and the <sup>2</sup>*a-* prefix group (1) plurals. The most common internal plural, and the second most common plural overall (Prasse's class 2), is marked by a long /aa/ in the second syllable. This is found with both masculine and feminine nouns. (Berber nouns have an obligatory prefix V-masculine, tV- feminine).

TABLE 9a

Touareg 'Internal a' Plurals

m.	amȳas	→	imȳās	"molar tooth"
	edäbir	→	idbâr	"male dove"
f.	tedäbirt	→	tidbâr	"female dove"
	täwînost	→	tiwînas	"ring"

<sup>56</sup> J. R. Applegate, "The Berber Languages," in C. T. Hodge, ed., *Afroasiatic: A Survey* (The Hague, 1971), pp. 96–118, p. 108.

<sup>57</sup> (Copenhagen, 1973).

<sup>58</sup> Transcription is that of Prasse, *Grammaire Touaregue*.

<sup>59</sup> "For the various infinitives . . . and substantivized verbal forms and themes, plural 1 is the only one possible"; *Grammaire Touaregue*, p. 51.

<sup>60</sup> "The plurals marked by an altered vocalization—called broken or internal—are known also in Semitic. Moreover, the vowel patterns employed for this pur-



Prasse suggests a correspondence between this plural and the Semitic *i-a(a)* and *u-a* plurals—i.e., the patterns labeled (1) and (2) in the preceding tables. He also notes that this plural is virtually unknown for singulars with an /a/ vowel in the final syllable.<sup>61</sup> This fact of distribution may itself be taken as a significant isogloss connecting Berber with southern Semitic (see Table 13 below and following discussion). However, the dissimilation rule which applies in the rare cases when an /a/-vowel singular takes an /a/ plural always affects the stem vowel, never the plural marking /a/ vowel (*ābâhâr* → *ibûhar* "bare back"). This is comparable to the dissimilation which occurs with feminine nouns in Arabic but is not comparable to the dissimilation rule which we would construct on the basis of the masculine noun plurals in southern Semitic. Thus Touareg provides no formal equivalent to the southern Semitic high vowel <sup>2</sup>aCCuuC, CvCuuC (← CaCC) type plurals.

Touareg does allow an internal plural for some four consonant and longer nouns, including nouns of instrument with prefix *s-* and some verbal adjectives with prefix *m-*. However, the form of the plural for these nouns is different from that of the southern Semitic group (3) plurals. In Touareg, the plural /aa/ is always found in the final syllable rather than in the second syllable.

TABLE 9b

Internal /a/ in Four-Consonant Nouns in Touareg

ānṽbdiid	→	inābdād	"careful man"
āsāgbār	→	isāgbār	"cord tied around a sack"

In addition to these two major classes, Prasse's system includes nine further plural classes. Of these, the class with prefix *idd-* can safely be dismissed as a Berber innovation. The mixed type with internal /a/ plus the regular plural suffix is principally associated with nouns with final stem vowel, which Prasse reconstructs as having lost a final radical \*/h/.

TABLE 9c

Touareg 'Mixed' Plural

akli	→	iklân	"slave" (m.)
taklit	→	tiklâtîn	"slave" (f.)

All of the other plurals involve some type of anomalous suffix: *-ân* (long aa in suffix); *-awan* (m.), *-awin* (f.); *-iwan*, *iwin*; *-a* (feminine only); *-aw* (only two nouns); *-t* (four

pose in Berber are probably all found in Semitic, as we will soon see. However, Semitic has additional vowel patterns which are not used in Berber, notably the vowel pattern *ū-ū* and *ā-ā-i* of the quadrilaterals.

"The Prefix <sup>2</sup>a- of certain Semitic broken plurals (e.g., <sup>2</sup>aBCâD) is also unknown to Berber" (ibid., p. 48).

<sup>61</sup> Ibid., p. 52.

nouns denoting family relations); *-awāt* (only one noun). It seems that the allomorphy of both the mixed type plurals and irregular suffix plurals is essentially of the same type as that associated with 'weak' and 'defective' roots in Semitic languages.<sup>62</sup> In Semitic languages, stems with only two consonants ('defective') tend to add a default consonant in derived forms such as the plural, while stems which contain a semivowel ('weak') are subject to phonological rules which delete the semivowel in certain environments. Thus Prasse notes that the suffixes *-awan* (m.), *-awin* (f.) are common for masculines which (are reconstructed to) have a weak initial root and that this suffix and the suffixes *-iwan*, *-iwin* are the only possible plurals for feminines with a final radical vowel. The comments of other Berberists are perhaps even more clear on this point. For the similar irregular plural suffixes in Kabyle, Chaker notes:

Tous ces suffixes irréguliers (*-an*, *-(a)wn*, *-(i)win*, *-(a)tn*, *-(a)tin*) ce combinent, *le plus souvent*, avec des nominaux n'ayant pas trois consonnes radicales (allongement compensatoire? réapparition au pluriel d'une ancienne radicale semi-vocalique?).<sup>63</sup>

And for the comparable forms in Tamazight, Penchoen says:

As a general rule—not without exceptions however—cross dialect or dialect internal evidence suggests treating these endings as the regular *n* or *in* suffixes preceded by elements—vowel (*an*), semi-vowel (*wən*, *yən*, *win*) or consonant *ʔ* (*tən*, *ʔin*) or a vowel and a semi-vowel (*-awən*, *iwən*)—which belong to the noun stem in the plural.<sup>64</sup>

For the few irregular suffix plurals which cannot be explained as deriving from weak or defective singulars, Prasse does suggest extra-Berber affiliations. Plurals with suffix *-ân* deriving from sound 3-consonant singulars he connects with the CiCCaan, CuCCaan forms of Arabic. It seems to me that an explanation in terms of internal Berber analogy is more plausible here (lengthening of the vowel of the masculine suffix to correlate with the long vowel of the feminine). But, in any case, since the proposed Semitic cognate is found only in Arabic, the issue is irrelevant to Semitic subclassification. Prasse also proposes (tentatively) a connection between the *-a* suffix types (those few which cannot be interpreted as deriving from final weak stems) and the Arabic plurals with suffix *-aaʔ* or *-aa* (CaCCaa, CuCaCaaʔ, ʔaCCiCaaʔ).<sup>65</sup> This proposal is unlikely on distributional grounds. The Arabic forms are all plurals of masculine adjectives, whereas the Berber suffix is exclusively associated with concrete feminine nouns. The suffix could equally well be taken as cognate with the Semitic feminine sound plural *-aat*, since the productive feminine suffix *-iin* is almost certainly a Berber innovation.

Prasse's classification of the Touareg plurals into 11 subgroups thus superficially gives the impression that there is a degree of allomorphy here comparable to that found in southern Semitic languages, but this impression is misleading. In fact, the noun plural system of Berber is remarkably similar to that found in NW Semitic languages such as Biblical Hebrew. There are basically two types of plural—internal and external. The external plural is formed by suffixes and has different forms for the masculine and feminine. The

<sup>62</sup> See n. 18 above and my "Broken Plural Problem," pp. 325–29, 605–14.

<sup>63</sup> "All of these irregular suffixes (*-an*, *-(a)wn*, *-(i)win*, *-(a)tn*, *-(a)tin*) combine most frequently with nouns which do not have three radical consonants (compensatory lengthening? reappearance in the plural of an earlier semi-vocalic radical?)" see S. Chaker,

*Un Parler berbère d'Algérie* (Aix-en-Provence, 1983), p. 90 (italics in original).

<sup>64</sup> T. Penchoen, *Tamazight of the Ayt Ndhir* (Los Angeles, 1973), p. 16. The *ʔ* here represents a dental fricative /θ/.

<sup>65</sup> Prasse, *Grammaire Touaregue*, p. 60.

internal plural is marked by /a/ in the stem final syllable and is sometimes (though not obligatorily) accompanied by a pleonastic plural suffix. Allomorphy conditioned by syllabic structure of the singular, of the type found in southern Semitic languages, is not present here. The allomorphy which is found is comparable to the essentially phonologically conditioned allomorphy found with weak and biradical roots in Semitic generally. The relative distribution of internal and external plurals in Touareg is not the same as that which we reconstruct for Proto-Semitic (internal for underived, external for derived nouns), but neither is the distribution inconsistent with such a reconstruction for Proto-Berber or Proto-Afroasiatic.

### III.2.5.2 Hausa (Chadic)

Given the tremendous diversity of the Chadic language family, it would be imprudent to claim that any Chadic language is necessarily a typical representative of the family. I choose to treat Hausa here simply because it is the most thoroughly studied language of the family and because it shows an extremely high degree of allomorphy in its noun plural system. The Hausa plural system indeed appears more complicated than that found in other Chadic languages,<sup>66</sup> but this may simply reflect the fact that Hausa has more dialectal variation than other Chadic languages or that Hausa has been better described. On the basis of phonology, lexicon, and verbal morphology, Jungraithmayr classes Hausa as relatively innovative (more exactly stage III on a scale of I to IV, stage I being most archaic).<sup>67</sup> We should not, however, conclude from this that the Hausa plural system is also innovative, since the three examples that Jungraithmayr gives as representing stage I languages—Mubi, Ron of Daffo, and Migama—all do exhibit some type of 'internal a' plurals.<sup>68</sup>

In Hausa, all nouns end in a vowel. An 'external' plural can be formed by modifying the quality of this vowel. Singulars ending in /ii/ or /e/ change this to /aa/ or /ai/ in the plural. (The final vowel shift /ii/ → /aa/ is productive for agent nouns with prefix *ma-*.) Those with final /aa/ or /oo/ change this to /ii/ or /uu/ in the plural.<sup>69</sup> (A final /aa/ vowel is the characteristic mark of the feminine.)

TABLE 10a

#### Hausa External Plural

ʔābookii	→	ʔābōḍḍakai	"friend"
maɗinkii	→	maɗinkaa	"tailor"
maḱēērii	→	maḱēēraa	"blacksmith"
maḱarantaa (f.)	→	maḱarāntuu	"school" (noun of place)
kujēēraa (f.)	→	kujēēruu	"chair"

<sup>66</sup> For a survey of plural formation in Chadic, see P. Newman, *Nominal and Verbal Plurality in Chadic* (Dordrecht, 1990). For attempts at reconstructing the Proto-Chadic plural system on the basis of a less-broad but more-detailed analysis of the systems of a selection of Chadic languages, see Z. Frajzyngier, "The Plural in Chadic" in P. Newman and R. M. Newman, eds., *Papers in Chadic Linguistics* (Leiden, 1977), pp. 37–57, and my "Broken Plural Problem," pp. 472–532.

<sup>67</sup> H. Jungraithmayr, "Is Hausa an Early or Late Stage Chadic Language?," in Frajzyngier, ed., *Current Progress in Chadic Linguistics* (Amsterdam, 1989), pp. 251–56.

<sup>68</sup> According to the data provided by Newman, *Nominal and Verbal Plurality in Chadic*, pp. 40–41.

<sup>69</sup> C. Kraft and A. H. M. Kirk-Greene, *Hausa* (London, 1973), pp. 123–24; F. W. Parsons, "Hausa and Chadic," in J. Bynon and T. Bynon, eds., *Hamito-Semitic*:



As these examples indicate, most nouns with more than two syllables and most derived nouns (including nouns of agent, of place, and of instrument with prefix *ma-*) form an external plural. The distribution of this 'external' plural is comparable to the distribution we reconstruct for sound plurals in W Semitic. Parsons notes:

The typical plural form of a Hausa noun is trisyllabic. Hence it would appear that where (less commonly) a singular form was also trisyllabic (or quadrisyllabic), simple flexional plurals . . . were from the earliest times preferred to those . . . which would have involved adding a fourth (or fifth) syllable.<sup>70</sup>

Yet this class of plurals also includes a very small (though semantically basic) set of bisyllabic two- or three-consonant nouns (e.g., *màcè* → *maataa* "woman, wife").<sup>71</sup>

There is a great variety of plurals involving some type of stem internal change, often in conjunction with reduplication or suffixation. Two relevant generalizations can be made. First, as regards distribution, only one, most probably innovative, process involving an /oo/ vowel and final consonant reduplication appears to be generally applicable to trisyllabic nouns; otherwise, nouns subject to 'internal' pluralization processes are overwhelmingly bisyllabic and either bi- or triconsonantal. Second, as regards form, in plurals formed by insertion of a vowel, the inserted vowel always appears in the penultimate syllable of the plural.

Most underived Hausa nouns are bisyllabic, having one of the following patterns: CVCVV, CVCCVV, CVVCVV. Productively, these nouns form a plural with long /aa/ in the second syllable CV(X)CVV → CV(X)CaaCVV. For two-consonant singulars, the quality of the third (epenthetic) consonant is either a copy of the final consonant (reduplication) or a default consonant, usually a glide /y/, sometimes /n/, /k/, or /w/. The quality of the final vowel of the plural form is also subject to variation, conditioned first by tone pattern, second by vowel quality of the singular.<sup>72</sup> Singulars with the tone pattern high-high (which includes much basic vocabulary) productively show a vowel sequence àà-ee, with tone pattern high-low-high in the plural.<sup>73</sup>

TABLE 10b  
Hausa 'Internal a' Plurals (Major Class)

birnii	→	biràànee	"city"
kulkii	→	kulààkee	"cudgel"
wurii	→	wurààree	"place"
suunaa	→	suunààyee	"name"

*Proceedings of a Colloquium Held by the Historical Section of the Linguistics Association of the School of Oriental and African Studies* (The Hague, 1975), p. 440. The system of transcription adopted here is the standard Hausa orthography, except that long vowels are written as a sequence of two vowels and the glottal stop is explicitly indicated. Low tones are marked with

grave accent, high tones unmarked.  
<sup>70</sup> Parsons, "Hausa and Chadic," p. 440.  
<sup>71</sup> Ibid., p. 438; Kraft and Kirk-Greene, *Hausa*, p. 123.  
<sup>72</sup> Parsons, "Hausa and Chadic," p. 443.  
<sup>73</sup> Ibid., p. 442; Kraft and Kirk-Greene, *Hausa*, p. 123.

the singular vowels. There is some variation in the tone pattern of the plural also.<sup>74</sup>

Hauſa 'Internal a' Plurals (Minor Classes)

sird̩i	→	sirààdaa	“saddle”
taiki	→	tayààkaa	“hide sack”
mur̩fùù	→	murààfuu	“3-stone fireplace”
ʔidòò	→	ʔidàànuu	“eye”
kaafàa	→	kafààfuu	“leg”
tunkiya	→	tumaakii	“ewe”
dooki	→	dawaakii	“horse”
tufàa	→	tufaafi	“garment”

of this pattern is of recent origin.

### Reduplicative -ooCii Type

mootàà	→	mootoocii	“car”
teebùùr	→	tebuuroorii	“table”
fartanyàà	→	fartanyooyii	“hoe”

/aa/, which has low tone).<sup>77</sup>

Hauſa 'Internal u' Plural (?)

cookàlii	→	cookulàà	“spoon”
gààtarii	→	gaaturàà	“axe”

of or innovation in the -CaaCii" type.

<sup>75</sup> Parsons ("Hausa and Chadic," p. 439) regards this type as originally being "simply a phonetic variation

<sup>77</sup> Ibid., p. 124; Parsons, "Hausa and Chadic," p. 440.

For biconsonantal nouns with a long vowel (CvvC-), a plural with the same vowel quality and tone pattern as the previous type is formed with addition of a consonant, either /n/, /w/, or /k/.<sup>78</sup>

TABLE 10f

d'aakùù	→	d'aakunàà	"hut"
tààfii	→	taafunàà      taafukàà	"palm of the hand"

For biconsonantal singulars which have a short vowel in the first syllable (CVC), a plural with the same vowel quality and tone pattern is formed with reduplication of the second consonant. There are two types of reduplication here, however. The second consonant may spread to fill the slot of the plural as in the /aa/ type.

TABLE 10g

kàshii	→	kasussàà	"bone"
ᵀàbù	→	ᵀabubbàà	"thing" <sup>79</sup>

Alternatively, however, and apparently more commonly, reduplication takes place before the attachment of the -uCaa sequence.

TABLE 10h

ᵀàbù	→	ᵀabuubuàà	"thing"
sulèè	→	suluulukàà	"shilling"
gàrii	→	garuuruwàà	"town" <sup>80</sup>

The superficial resemblance between the sequence -*unaa* (alternating with -*uwaa*, -*ukaa*) and the Arabic 'sound' masculine plural -*uuna* cannot be taken to reflect a direct etymological connection. The forms which take the extra consonant (/n/, /w/, or /k/) are mostly biconsonantal (paralleling three consonant forms with the same vowel and tone-pattern without the extra consonant), indicating that the extra consonant here is in origin an epenthetic consonant required to fill out the prosodic pattern of the plural.<sup>81</sup> The various -uCaa

<sup>78</sup> Kraft and Kirk-Greene, *Hausa*, p. 124; Parsons, "Hausa and Chadic," p. 440.

<sup>79</sup> Parsons, "Hausa and Chadic," p. 440.

<sup>80</sup> Ibid.; Kraft and Kirk-Greene, *Hausa*, p. 122.

<sup>81</sup> This is a common phenomenon in Afroasiatic languages, as I have discussed in more detail elsewhere ("Drift"). For Chadic, I would endorse Frajzyngier's interpretation of these /n/, /k/, and /w/ plural



sequences have, to a limited extent, been reinterpreted as plural suffixes and extended analogically.

The consonants /n/ and /k/ also appear in plurals with final -àCii sequence, deriving from biradicals with stem final /aa/.<sup>82</sup>

TABLE 10i

goonaa	→	gòònàkii	"farm"
kààkaa	→	kààkànnii	"grand-parent"
watàà	→	wàtànii	"month"

For three consonant singulars with stem final /aa/, a 'mixed-type' with internal /ee/ plus suffix -anii is rarely attested.

TABLE 10j

gàrmaa	→	garèèmanii	"trenching hoe"
fàrkaa	→	farèèkanii	"paramour" <sup>83</sup>

According to Parsons, Hausa does exhibit one word formation process that is formally similar to the southern Semitic four-consonant plural type CaCaaCiCu: four consonant singulars, which are themselves reduplicated biradicals form a dual by insertion of /aa/ after the second consonant. A plural can be derived from it by vowel change.

TABLE 10k

singular		dual		plural	
digdigee	→	digaadigii	→	dugaadugai	"heel"
fikfikce	→	fikaafikii	→	fukaafukai	"wing"
zugzugee	→	zugaazugii	→	zugaazugai	"bellows" <sup>84</sup>

suffixes as secondary developments from original demonstrative elements ("The Plural in Chadic," pp. 54–55). But for an opposing interpretation, see Newman, *Nominal and Verbal Plurality in Chadic*, pp. 48–50. By Frajzyngier's interpretation, the /n/ here is indeed comparable to the /n/ in Arabic plurals of the biibaan- (← baab-) type. But this is the result of common drift, not a direct inheritance from the protolanguage.

<sup>82</sup> "There are comparatively few words in these two classes, but this is accounted for by the fact that the

singular forms have a very restricted phonological range, in the case of -akii plurals almost only CaaCaa and in the case of -an(n)ii plurals either CaaCaa or CarCaa, or CarCaa, or CuCaa/ee. Why these particular patterns of nouns should have been singled out (apparently *ab initio*) for such a special type of plural formation is quite obscure" (Parsons, "Hausa and Chadic," p. 445).

<sup>83</sup> Ibid., p. 439.

<sup>84</sup> Ibid., p. 428.

Finally the prefix-suffix alternation plural used especially for ethnic designations (*bàkanè* → *kanaawaa* “person from Kano”)<sup>85</sup> can be safely dismissed as a Hausa innovation.

Although Hausa has a plural system which is in general terms as rich in allomorphy as any found in any Semitic language, this allomorphy is not of the same type as that found in southern Semitic. At the base, we find an internal plural which is quite similar in form and distribution to those found in Berber and W Semitic—with an /aa/ vowel in the penultimate syllable. Variation in the form of this plural is partly of a type found in other Afroasiatic languages—variation conditioned by the quality of the vowels of the singular and variation involving addition of various default consonants in the plural form of biradical singulars (including those interpretable as having an underlying glide or long vowel). Variation of the latter type is much more prominent in Hausa than elsewhere because of the historical loss of consonants which Chadicists have termed “word-thinning.”<sup>86</sup> Much of the rest of the variation in the form of the plural is variation in tone pattern. Whatever the origin of this might be, it clearly finds no analogue in southern Semitic and is irrelevant to the issue at hand. The Hausa system is further complicated by the development of innovative reduplicative and suffix plurals which again find no analogue in southern Semitic. The duals of the CiCaaCiCii type may indeed force us to revise our reconstruction to include a four-consonant internal plural in Proto-Afroasiatic. But the restricted distribution of the type to reduplicated biradicals must be taken into account and is, along with the dual semantics, an important point of difference with the southern Semitic CvCaaCiC group (3) plurals.

### III.2.5.3 Afar (Cushitic)

It is perhaps even more difficult for Cushitic than for Chadic to label any language ‘representative’ of the family. While the stem-internal plurals found in Chadic languages show a rough ‘family resemblance’, almost all involving some sort of vowel insertion or apophony process, the Cushitic languages show a greater variety of plural formation strategies—including ‘exotic’ processes like vowel shortening (Beja) and consonant apophony (Bilin).<sup>87</sup> I choose Afar because it has been the subject of several studies<sup>88</sup> and because its plural system shows a great number of superficial similarities with patterns found elsewhere in Afroasiatic. Furthermore, it has been classed as conservative on the basis of its verbal morphology.<sup>89</sup> A disadvantage with using Afar is that it exists in a contact situation with Ethiopian Semitic languages and Arabic and has clearly borrowed considerably from Arabic.

<sup>85</sup> Kraft and Kirk-Greene, *Hausa*, p. 124.

<sup>86</sup> See K. Shimizu, “Some Historical Factors in Chadic Lexical Reconstruction” in J. P. Caprile and H. Jungraithmayr, eds., *Préalables à la reconstruction du Proto-Tchadique* (Paris, 1978), pp. 31–38; and Jung-raithmayr, “Is Hausa an Early or Late Stage Chadic Language?,” p. 255.

<sup>87</sup> For a survey of pluralization in Cushitic, see A. Zaborski, *The Morphology of the Noun Plural in the Cushitic Languages* (Vienna, 1986); and my “Broken Plural Problem,” pp. 533–85.

<sup>88</sup> L. Bliese, *A Generative Grammar of Afar* (Ar-

lington, Texas, 1981); G. Colizza, *La lingua Afar nel nord-est dell' Africa: Grammatica, testi, e vocabolario* (Vienna, 1887); D. Morin, “Le nom en Afar du sud,” *BSOAS* 40 (1977): 354–70; E. M. Parker and R. J. Hayward, *An Afar-English-French Dictionary (with Grammatical Notes in English)* (London, 1985); L. Reinisch, *Die Afar-Sprache* (Vienna, 1886).

<sup>89</sup> I.e., by Zaborski, *The Verb in Cushitic: Studies in Hamito-Semitic I* (Cracow, 1975), p. 163. Afar also has a number of conservative phonological features; see Parker and Hayward, *Afar Dictionary*, pp. 214–16.

Afar nouns are marked for gender (masculine and feminine), case (nominative, genitive, accusative, and vocative), and number. The number categories are singular and plural. There is also a singulative derived from singular collectives by the addition of the suffix *-ta* (subject to minor phonologically conditioned variation): *guruf* "beehive(s)," *gurufta* "a beehive."<sup>90</sup>

Afar plurals are for the most part formed either by suffixation alone or by suffixation combined with internal changes. Variation in the form of the plural is largely a function of the gender of the noun and the quality of the final segments of the stem.<sup>91</sup> Most Afar singulars fall into one of three categories: (1) nouns ending in an unstressed final vowel, which are masculine; (2) nouns ending in a consonant, also masculine; and (3) nouns ending in a stressed final vowel, which are feminine.

Vowel-final masculines generally form a plural with the suffix *-itte*, which is the most common plural suffix overall. The plural forms are feminine.<sup>92</sup>

TABLE 11a

## Afar External Plural

bagu	→	bagitte	"stomach"
saaku	→	saakitte	"morning"
barkuma (f)	→	barkumitte	"cushion"

This plural seems to have default status in Afar. It is the only plural type for derived singulatives and for deverbative nouns of agent ending in *-eyna* (e.g., *bariseyna* → *bariseynitte* "teacher").<sup>93</sup>

The other common plural suffix is *-wa*. This plural is associated principally with consonant final masculines, and here too the plural is feminine.

TABLE 11b

## Afar External Plural

lubak	→	lubakwa	"lion"
<sup>2</sup> alib	→	<sup>2</sup> alibwa	"tendon"
ħaagid	→	ħaagidwa	"business"
daabeela	→	dabelwa	"buck goat" <sup>94</sup>

The most common plural for consonant final masculine nouns, however, has a lengthened vowel before the last stem consonant and a final /a/ vowel. Some nouns appear to allow a plural of either this or the previous type. This type of plural is also feminine.

<sup>90</sup> Parker and Hayward, *Afar Dictionary*, pp. 228–29; Bliese, *Grammar of Afar*, p. 176. The transcription adopted here is that of Parker and Hayward, with the following exceptions: the voiced pharyngeal fricative is represented as <sup>c</sup> (rather than q), the voiced post-alveolar retroflex stop as ḍ (rather than x), and the voiceless pharyngeal fricative as ħ (rather than c). Examples from

other sources are regularized to accord with this system.

<sup>91</sup> Parker and Hayward, *Afar Dictionary*, p. 229; Bliese, *Grammar of Afar*, pp. 176–79.

<sup>92</sup> Parker and Hayward, *Afar Dictionary*, pp. 229–30; Bliese, *Grammar of Afar*, pp. 177–78.

<sup>93</sup> Parker and Hayward, *Afar Dictionary*, p. 230.

<sup>94</sup> Ibid.; Bliese, *Grammar of Afar*, pp. 178–79.



TABLE 11c

Afar Internal Plural (?)

rakub	→	rakuuba	"camel"
hutuk	→	hutuuka	"star"
ʔalib	→	ʔaliiba	"tendon"
ma <sup>c</sup> olim	→	ma <sup>c</sup> oliima	"teacher" <sup>95</sup>

It is not clear whether the opposition in vowel length is a primary marker of pluralization in Afar. Parker and Hayward treat vowel lengthening as a mark of the plural.<sup>96</sup> But Bliese regards the plural forms with a long final stem vowel as resulting from the reappearance of an underlying long vowel under phonemic conditioning.<sup>97</sup>

Feminine nouns with a stressed final stem vowel form a plural by reduplication of the final consonant accompanied by lengthening of the final stem vowel (more rarely without lengthening and plus suffix *-wa*). These plurals also are feminine.

TABLE 11d

Afar Reduplicatory Plurals

ʔamo	→	ʔamooma	"head"
ʕale	→	ʕaleela	"mountain"
or	→	ʕalelwa	
ʔangu	→	ʔanguuga	"breast"
derfa	→	derfaafi	"boundary" <sup>98</sup>

Afar also has dissimilatory variants of the preceding two types, comparable to the southern Semitic /u/ plurals. For singulars which have a short /a/ vowel in both the final and penultimate syllables, the second /a/ dissimilates to /o/ and lengthens in the plural.<sup>99</sup>

TABLE 11e

Afar Dissimilatory Plurals

(masc.)	da <sup>c</sup> ar	→	da <sup>c</sup> oorā	"river"
	dahab	→	dahooba	"gold"
	ʕafar	→	ʕafoora	"Afar"
(fem.)	lafa	→	lafoofi	"bone"
	na <sup>c</sup> na	→	na <sup>c</sup> nooni	"candies"
	tayyara	→	tayyaroori	"airplane"

<sup>95</sup> Parker and Hayward, *Afar Dictionary*, p. 230; Bliese, *Grammar of Afar*, pp. 178–79.

<sup>96</sup> *Afar Dictionary*, p. 230.

<sup>97</sup> *Grammar of Afar*, p. 178.

<sup>98</sup> Parker and Hayward, *Afar Dictionary*, p. 230; Bliese, *Grammar of Afar*, p. 177.

<sup>99</sup> Bliese, *Grammar of Afar*, pp. 177–78.

Monosyllabic (two-consonant) words in this language present some interesting anomalies. Bliese records the existence of a special plural suffix *-oowa* for two consonant stems with short /a/ in one dialect of Afar.<sup>100</sup>

TABLE 11f

ḥan	→	ḥanoowa	"milk"
ʔaf	→	ʔafoowa	"language"
san	→	sanoowa	"nose"
lak	→	lakoowa	"thigh"

In other dialects, these nouns simply take the *-wa* plural suffix, according to Bliese. Other sources, however, give reduplicative plurals for some nouns of this class. Parker and Hayward, for example, record *ḥan* → *ḥanoona* "milk" and *daas* → *daasoosa* "shop."<sup>101</sup> For *ʔaf* "mouth," Colizza gives the plural *ʔafof*.<sup>102</sup>

There are a number of statistically 'minor' plural patterns in Afar.<sup>103</sup> Some of these are formally similar to southern Semitic group (2) feminine forms CvCCat → CvCaC in that they show loss, rather than addition, of a suffix vowel and insertion of a short vowel in the plural. The plural forms are masculine.

TABLE 11g

dalka (f)	→	dalok (m)	"pastry"
dakha (m)	→	dakoḥ (m)	"disease"

Other 'minor' plural forms show a long vowel after the second stem consonant.

TABLE 11h

be <sup>c</sup> ra (m)	→	be <sup>c</sup> eera (f)	"steer"
birta (m)	→	biriita (f)	"metal"
bakli (f)	→	baakiila (f)	"mule"
deber (m)	→	debaare (f)	"hobbling rope"
ḥelem (m)	→	ḥelaame (f)	"champion"

<sup>100</sup> Ibid., p. 179.

<sup>101</sup> Parker and Hayward, *Afar Dictionary*, p. 230.

<sup>102</sup> Colizza, *La lingua Afar*; see also the discussion

in Zaborski, *Cushitic Plurals*, p. 30.

<sup>103</sup> Parker and Hayward, *Afar Dictionary*, p. 231.

These plurals are similar to the long vowel plus suffix *-a* plurals, with the important difference that the plural formation process here cannot simply be described as (perhaps phonemically conditioned) vowel lengthening. In the first three examples in Table 11h, a long vowel in the plural replaces zero in the singular. In the last two examples, long /aa/ overwrites the vowel of the singular. These minor types are thus perhaps better examples of a (residual?) internal vowel plural than the more productive long vowel plus suffix *-a* types. But caution is advisable here, since the singulars all appear to be loan words.<sup>104</sup>

Afar does have a four-consonant plural form comparable to the southern Semitic group (3) plurals. But this is generally recognized as a borrowing from Arabic.<sup>105</sup> (Words taking this plural are almost exclusively Arabic loans.)

TABLE 11i

daftar	→	dafaatir	"notebook"
bismaar	→	bisaamir	"nail"
bus <sup>c</sup> ado	→	basaa <sup>c</sup> id	"Soemmering's gazelle"

It is not clear that Afar has any internal plurals other than those borrowed from neighboring Semitic languages. To the extent that it does have plural forms which can be interpreted as involving stem-internal modification, such forms show a consistent pattern involving insertion or change of a vowel before the final consonant of the stem. There are no patterns paralleling the group (4), (5), and (6) plurals of southern Semitic, and the parallels to the Semitic group (3) plural, like those in Table 11i are almost certainly due to borrowing. The most prominent candidate as a reflex of an 'internal-a' plural, the long vowel plus *-a* type illustrated in Table 11c, has been variously interpreted either as stem internal lengthening or as simple suffixation. I would tend to favor the view that this is an inherited internal plural, for the reason that the patterns of conditioned variation within the type are similar to those found in Afroasiatic languages in which stem internal plurals are unambiguously present: that is (1) biradicals tend to add an extra consonant in the plural form, and (2) stems with an /a/ vowel in the singular show vowel dissimilation in the plural. In any case, this type is parallel in distribution and similar in form to the W Semitic group (1) plurals.

#### IV. EVALUATING THE ISOGLOSSES

Table 12 below summarizes the data and discussion above in the form of an isogloss table.

<sup>104</sup> Zaborski, *Cushitic Plurals*, p. 51.

<sup>105</sup> Parker and Hayward, *Afar Dictionary*, p. 231.



TABLE 12

Formal Isoglosses in the Noun Plural System

	Ar.	OSA	Ge.	Ti.	Ha.	Jb.	He.	Ak.	Other AFAS <sup>106</sup>
(1) CVC(V)C →									
CVCV(V)C	+	+	+	+	+	+	+	-	+
(i/u) > CiCaC	-		+	+	?	?	+	-	(+)
CiCaaC	+		-	-	+	(+)	-	-	+
(a) > CuCuuC	+		-	-	+	(+)	(+)	-	+
<sup>2</sup> aCCV(V)C	+	+	+	+	+	+	-	-	-
(i/u) > <sup>2</sup> aCCaaC	+		+	+	+	+	-	-	-
(a) > <sup>2</sup> aCCuuC	-		+	+	(+)	(+)	-	-	-
<sup>2</sup> aCCuC	+		+	+	-	-	-	-	-
<sup>2</sup> aCCuCt	-		+	(+)	-	+	-	-	-
<sup>2</sup> aCaaCeC	-		(-)	+	-	-	-	-	-
1-2) CVC →									
CVCV(V)C	+	+	+	+	+	+	+	+	+
(2) CVCCVt →									
CVCV(V)C	+	+	-	+	+	+	+	-	+
(i/u) > Ci/uCaC	+		-	+	(+)	(+)	-	-	(+)
(a) > CiCaaC	+		-	+	(+)	(+)	-	-	+
(a) > CaCaCaat	+		-	+	+	+	+	-	+
C) CVCCat									
< CVCC	+	?	(+)	+	(+)	(+)	(+)	+	+
(3) CVCCVC →									
CVCaaCVC	+	+	+	+	+	+	(-)	-	-
CVCaCCVC	-	-	-	+	+	-	-	-	-
CVCabCVC	-	-	-	-	-	+	-	-	-
CVCCiiC →									
CVCCaaC	-	-	-	-	+	+	-	-	-
(4) CVCVVC →									
CVCaaGVC	+	+	+	+	+	-	-	-	-
(5) CaaCiC (a.p.) →									
CaCaCat	+	(+)	+	+	+	+	-	-	-
CVCCaaC	+	?	-	(-)	-	-	-	-	-
(6) CaCiC →									
CuCaCaa <sup>2</sup>	+	+	-	-	-	(+)	-	(-)	-
<sup>2</sup> aCCiCaa <sup>2</sup>	+	+	-	-	-	(+)	-	-	-
CiCaaC	+		-	-	+	+	-	-	-
CaCaC(V)t	-		+	-	-	+	-	-	-
CVCaaC →									
<sup>2</sup> aCCiCat	+	+	-	+	-	+	-	-	-
CuCuC	+	?	-	(+)	-	?	-	-	-
	Ar.	OSA	Ge.	Ti.	Ha.	Jb.	He.	Ak.	Other AFAS

<sup>106</sup> Other AFAS = other (non-Semitic) Afroasiatic languages.

## IV.1 ISOGLOSSES DEFINING SW SEMITIC AGAINST NW SEMITIC

As Table 12 shows, the isoglosses linking Arabic with the southern languages and separating it from other Semitic and Afroasiatic languages are quite stark. Where both NW Semitic and the southern languages have internal plurals, the Arabic forms correspond closely with those of the southern languages. A rule of vowel insertion in plural formation: CVCC → CVCa(a)C is obligatory for group (1) and (2) nouns in West Semitic generally. Beyond this basic pattern, NW Semitic has a characteristic pleonastic plural suffix.<sup>107</sup> A characteristic feature of SW Semitic, by contrast, is that plurals of the base noun in these languages more often than not have a prefix or prothetic ʔa- in the plural. According to Beeston, the plural with alif prefix accounts for more than half of all the plurals in Sabaic.<sup>108</sup> The pattern ʔaCCaaC is also the most common plural for CVCC nouns in Arabic, Geʿez, and Tigre, as indicated in Table 13 (below) by the numbers in parentheses under each type, which is the total number of examples of each type in the sample. In addition, SW Semitic languages allow variation both in the quality (/a/ vs. /u/) and length of the inserted vowel. As Table 13 shows, in Arabic, Geʿez, and Tigre, the internal /u/ plurals are predominately associated with singulars which have an /a/ vowel. This distribution suggests that the ancestor of these languages had a rule of vowel dissimilation or apophony. As has been noted above, similar dissimilatory plurals are found associated with /a/-stem singulars in other Afroasiatic languages.

TABLE 13

Relative Distribution of /a/ and /u/ Group (a) Plurals<sup>109</sup>

Arabic <sup>110</sup>				
	CiCaaC (123)	ʔaCCaaC (654)	CuCuuC (401)	ʔaCCuC (27)
CuCC	5, 9	17, 73	6, 16	6, 2
CiCC	5, 7	23, 67	13, 23	12, 3
CaCC	29, 12	26, 27	73, 49	82, 6
CvCvC	5, 6	33, 85	6, 9	—, —

<sup>107</sup> Noted as a significant NW Semitic isogloss by Huehnergard, "Remarks on Classification," and by Corré, "Hebrew—Some Modest Proposals."

<sup>108</sup> *Epigraphic South Arabian*, p. 33.

<sup>109</sup> Numbers in parentheses indicate the total number of each plural type in the sample. The first number in each pair of numbers indicates the percentage of singulars of the pattern at the head of the row as a proportion of all singulars which have the plural pattern at the top of the column. The second number indicates the percentage of plurals of the pattern at the top of the column as a proportion of all the plural types which may be derived from a singular of the type at the head of the row. Thus, for example, in Geʿez, all (100 per-

cent) of the plurals of the pattern CeCaC derive from singulars of the pattern CeCC. But not all singulars of the pattern CeCC form a plural according to the CeCaC pattern. Only 28 percent of the plurals deriving from CeCC singulars have the CeCaC pattern. Since the suffix plural in Geʿez is essentially an open category, I saw no point in trying to calculate the total number of citations of this plural in the dictionary, nor in trying to calculate what percentage of all suffix plural forms are derived from a given singular pattern. Hence the place of the first figure in the last column is filled with a question mark.

<sup>110</sup> Based on figures given by Levy, "The Plural of the Noun in Modern Standard Arabic."

TABLE 13—*Continued*

Ge <sup>c</sup> ez <sup>111</sup>						
	CeCaC (30)	ᵀaCCaaC (116)	ᵀaCCeCt (46)	ᵀaCCeC (10)	ᵀaCCuuC (8)	suffix pl.
CeCC	100, 28	35, 38	17, 7	10, 1	—, —	?, 13
CaCC	—, —	35, 30	83, 28	90, 6	62, 4	?, 18
CaCaC	—, —	30, 68	—, —	—, —	38, 6	?, 20

Tigre <sup>112</sup>					
	CəCaC (5)	ᵀaCCaaC(aat) (89)	ᵀaCCuC (42)	ᵀaCCəC (15)	ᵀaCaCCəC(vt) (32)
CəCəC	100, 6	80, 76	36, 16	7, 1	3, 1
CaCəC	—, —	10, 20	17, 16	80, 27	53, 38
CaCaC	—, —	10, 20	48, 44	13, 4	44, 31

In cases where Arabic and the southern languages have internal plurals, while other Semitic and Afroasiatic languages do not, the forms are also quite close. A key isogloss defining SW Semitic is the obligatory CaCaaCiC plural of quadriliteral CVCCVC base nouns. Another significant isogloss is that in all of the languages (except Jibbali) one possible plural for triconsonantals with a long vowel follows the quadriconsonantal pattern (CaCiC → CaCaaᵀiC or CaCaayeC).

In addition to these three productive and regular plural patterns (CVCC → ᵀaCCaaC, CVCCVC → CVCaaCiC, and CVCVVC → CaCaaGiC), there are a number of statistically minor or irregular patterns which are shared by Arabic and one or more of the languages further to the south. In group (1), Arabic and a number of other southern languages have a plural in /u/ (or a central vowel /ə/ reflecting short /u/). The productive /u/ plurals are, however, different in Arabic and the Ethiopian languages. Arabic has ᵀaCCuC and CuCuuC; the Ethiopian Semitic languages have ᵀaCCəC (=ᵀaCCuC), ᵀaCCəCt, and ᵀaCCuuC. Only the ᵀaCCuC pattern, which is nonproductive and statistically minor wherever it occurs, is shared.

In the forms of the feminine base noun, group (2), Arabic, Tigre, and MSA all show a pattern whereby feminine nouns fall into two phonologically defined classes, which take different plural types. In Arabic, singulars with high vowel generally form a plural by simple insertion of short /a/ (Ci/uCCat → Ci/uCaC), while singulars with an /a/ vowel either have a pleonastic suffix in the plural (CaCCat → CaCaCaat) or show dissimilation of the stem vowel combined with insertion of long or short /a/ (CaCCat → CiCaC, CiCaaC). In

<sup>111</sup> Based on my count of forms in Leslau's *Comparative Dictionary of Ge<sup>c</sup>ez*.

<sup>112</sup> Based on analysis of counts given by Palmer, *Morphology of the Tigre Noun*.



Tigre, the high-vowel singulars (CəCCat) consistently have plurals with no change of stem vowel and intercalated (historically) short /a/ (→ CəCaC), while singulars with stem vowel /a/ (CaCCat) frequently undergo stem vowel dissimilation in the plural and, as in Arabic, may have either long /aa/ or short /a/ as the intercalated vowel (→ CəCaC, CəCaaC). In the MSA languages, too, triconsonantal feminine nouns fall into phonologically defined classes, of which one takes the simple internal plural only and the other has a 'mixed' type with vowel insertion plus a feminine plural suffix.

For the (lexicalized) active participle, Arabic, MSA, Ge<sup>ez</sup>, Tigre, and seemingly OSA share a frequent irregular plural CaCaCat (Ge<sup>ez</sup> CaCaCt, Tigre CaaCCat), although the Ge<sup>ez</sup> (CeCaaCii) and Tigre (CaaCCay) singular forms associated with this plural are somewhat idiosyncratic. In Arabic, the pattern CaCaCat alternates as plural of CaaCiC singulars with another pattern CuCCaaC, which is not clearly reflected in other Semitic languages.

For singulars CVCaaC, a frequent irregular pattern ʔaCCiCat or ʔaCiCCat is attested in Arabic, Tigre, Jibbali, and apparently OSA. For the Arabic pattern CaCiiC → CuCaCaaʔ, ʔaCCiCaaʔ, the only SW Semitic parallel is found in OSA. (The parallel Jibbali pattern CVCiC → CVCiCeh is probably borrowed from Arabic, since it appears only in religious or legal terms borrowed from Arabic).

#### IV.2 ISOGLOSSES LINKING SOUTHERN ARABIAN AND ETHIOPIAN SEMITIC AGAINST ARABIC

There are no isoglosses in the plural system which would link Ethiopian Semitic and Southern Arabian in such a way as to require a classification of these languages as belonging to a branch of Semitic or West Semitic distinct from that which contains Arabic. At most, the isoglosses argue for a division within SW Semitic. That is, all the isoglosses represent modifications of patterns which these languages share with Arabic but which are not found in NW or E Semitic.

Table 12 shows two isoglosses shared by one or more south Arabian language and one or more Ethiopian Semitic language but not found in Arabic. The most significant of these, in terms of number of words affected, is the form of the Group (1) /u/ plural. The pattern ʔaCCəCt (<\*CaCC) links Ethiopian Semitic and Jibbali (as opposed to Arabic which has CuCuuC). Yet such a form as plural of CVCC nouns is not clearly attested in Harsusi or OSA. Harsusi, moreover, has a productive plural CeCewweC, which seems to reflect Arabic CuCuuC. Tigre, Tigrinya, and Ge<sup>ez</sup> also have a plural ʔaCCuuC, which is completely unknown in Arabic. Some of the VCCVVC types of Harsusi and the VCCVC types of Jibbali could reflect this pattern as could some of the ʔCCC forms in OSA.

The second isogloss is the treatment of adjectives which have the pattern CaCiiC in the masculine singular. Ge<sup>ez</sup> and Jibbali have a plural CaCaCt, although the Ge<sup>ez</sup> and Jibbali feminine forms are not cognate. Arabic has a plural CiCaaC, as well as CuCaCaaʔ and ʔaCCiCaaʔ, and occasionally a group (4) type plural CaCaaʔiC. Harsusi closely parallels Arabic in having a feminine \*CaCiiCat and plural \*CiCaaC for adjectives of this class. The isogloss network is further complicated by Tigre, which parallels Ge<sup>ez</sup> in forming the feminine of these adjectives by internal vowel alternation but which has a plural formed on the regular type 4 pattern (CaCaayəC). These facts are laid out in Table 14 below.

Feminine and Plural Forms of CaCiiC Adjectives in Arabic, Harsusi, Ge'ez, Jibbali, and Tigre

m. CaCiiC f. CaCiiCat			pl. CiCaaC		
			pl. CaCaCt		
		f. CaCaaC	pl. CaCaaGiC		
		f. CaCCaaC			
Ar.	xafiif	xafiifat	→	xifaaf	
Ha.	xfef	xfefet	→	xfef	
Ge.	°abiiy		→		°abayt
Jb.	xfif	xfift	→		xfeft
Tg.	°abii		→		°abaayi

A third isogloss links Harsusi with the modern Ethiopian language Tigre (and also Tigrinya). This is the existence of quadriliteral plurals where the heaviness of the second syllable is created by a geminated third consonant rather than a long vowel (CaCaCCiC, CaGaCCiC, CaCaGG*i*C). This isogloss is disturbing because such a form is apparently not found in Ge<sup>c</sup>ez. Even if this must be regarded as an innovation shared by Ethiopian Semitic and southern Arabian, it too merely represents a modification of patterns (CaCaaCiC, CaGaaCiC, CaCaaGiC) shared by all of SW Semitic but not found in NW Semitic.

Comparison of the noun plural systems of the Semitic languages reveals a rich series of isoglosses linking Arabic with the geographically contiguous languages of South Arabia and Northern Ethiopia. Some of these isoglosses reflect retentions shared by NW Semitic and by a number of non-Semitic Afroasiatic languages. Nonetheless, by the accepted criteria for evaluating both internal and comparative evidence, the <sup>2</sup>*a*- prefix group (1) plurals and all of the group (3), (4), (5), and (6) plurals can only plausibly be explained as the result of innovations shared by SW Semitic languages.

The argument from internal evidence could be made on the basis of Arabic, Ge'ez, Tigre, possibly even OSA. Where we find two or more allomorphs showing the same distribution, the assumption is that, other things being equal, the more productive form is newer, while an allomorph which is nonproductive or lexically restricted is likely to be older.<sup>113</sup> On this basis, we can identify at least two strata. The younger stratum is represented by the statistically productive and formally relatively regular or transparent forms:

Kurylowicz, "La nature des procès dits analogiques," *Acta Linguistica* 5 (1947): 15–37; see also the discussion in H. H. Hock, *Principles of Historical Linguistics* (Berlin and New York, 1991), pp. 219–37.

group (1)  $^2aCCaaC$ , group (3)  $CaCaaCiC$ , and group (4)  $CaGaaCiC$ ,  $CaCaaGiC$ . The older stratum is represented by less-productive and less-regular forms: group (1)  $^2aCCuC$ , group (5)  $CaCaCat$ , and group (6)  $^2aCCiCat$ ,  $^2aCCiCaa^2$ .

The forms defined as innovative by this criterion show close formal correspondences in all the southern languages. The hypothetically older forms also show partial correspondences in the older (by attestation) southern languages, but these too are not attested outside SW Semitic. As I said in the introduction, Diem notes rightly that it is not the existence of internal plurals but of a rich and complicated system of internal plurals which distinguishes SW Semitic from NW and E Semitic. He also says, mistakenly as it turns out, that what characterizes SW Semitic is the existence of a "Typ des inneren Plurals, der dadurch gekennzeichnet ist, daß die Pluralform in keinen formalen Verhältnis zur Singularform steht."<sup>114</sup> If such were in fact the case, if the languages merely shared a handful of idiosyncratic plural patterns conventionally or lexically associated with their singulars, one might reasonably suspect that these could be shared retentions of great antiquity. But such is not the case. The patterns which are shared by SW Semitic languages are not merely the irregular or nonproductive patterns, but rather the most productive and regular patterns in each language. The historical record (represented by the difference between Classical Arabic and the modern dialects, or less exactly by the difference between Ge'ez and Tigrinya),<sup>115</sup> shows these forms spreading at the expense of others. Borrowed words which conform with the patterns of the corresponding singulars also generally pluralize according to these patterns. Thus the range of the productive forms has tended to expand, and this expansion must have begun in the common SW Semitic period.

The comparative argument follows from the facts of relative distribution. Assuming that Arabic and the southern languages derive from a common Proto-SW Semitic ancestor, the plural forms of groups (3), (4), (5), (6), and the alif-prefix group (1) plurals can be seen as innovations due to analogical extension and sound changes which took place in this protolanguage, while the mixed or double plurals of Hebrew and Aramaic can be seen as the result of innovations characteristic of Proto-NW Semitic. The discrepancies between NW, SW, and E Semitic are then easily explained as analogical extension working in different directions in different subgroups after their separation from each other. In E Semitic, the method of formation of the external plural would have been extended to CVCC(at) nouns. Proto-W Semitic would have preserved the original Proto-Semitic system until the separation of NW and SW Semitic. In SW Semitic, the method of formation of the internal plural would have been extended to CVCCVC nouns and to lexicalized nouns with the patterns CVCVVC and CVVCVC. In NW Semitic, the internal plural would have been maintained in its original domain, but a pleonastic plural suffix would have been superimposed upon the inherited plural forms, as also upon the inherited collectives. The proposed development is indicated in Table 15, where boldface forms represent hypothetical innovations.

<sup>114</sup> "A type of inner plurals, which is characterized by the fact that the plural stands in no formal relationship to the singular" (Diem, "Die genealogische Stellung," p. 70).

<sup>115</sup> For an analysis of these developments, see F. Corriente, *Problemática de la pluralidad en semítico*, pp. 20, 47 ff.

TABLE 15

Hypothetical Evolution of the Semitic Plural System

Proto-Semitic (= Proto-W Semitic)						
(1)	Ci/uCCv	→	CvCa(a)Cv	\		
	CaCCv	→	CvCu(u)Cv	int. pl. domain		
(2)	Ci/uCCatv	→	CvCaCv	/		
	CaCCatv	→	CvCaCaatv	mixed type		
C)	CvCCatv	←	CvCCv	collective		
(3)	CvCCvCv	→	CvCCvCvv	\		
(5)	CvvCvCv	→	CvvCvCvv	ext. pl. domain		
(6)	CvCvvCv	→	CvCvvCvv	/		
	//			\\		
Proto-NW Semitic			Proto-SW Semitic			
(1)	CvCC	→	<b>CvCaCvv</b>	Ci/uCCv	→	CvCa(a)Cv
	[CaCC	→	CvCuCv]	CaCCv	→	<b>²aCCaaCv</b>
						CvCu(u)Cv
						<b>²aCCu(u)Cv</b>
(2)	Ci/uCCatv	→	<b>CvCaCaat</b>	Ci/uCCatv	→	CvCaCv
	CaCCatv	→	CvCaCaat	CaCCatv	→	CvCaCaatv
C)	CvCCatv	←	<b>CvCCvv</b>	CvCCatv	←	CvCCv
(3)	CvCCvCv	→	CvCCvCvv	CvCCvCv	→	<b>CvCaaCvCv</b>
(5)	CvvCvCv	→	CvvCvCvv	CvvCvCv	→	CvvCvCvv
						<b>CaCaCatv</b>
						<b>CvGaaCvCv</b>
(6)	CvCvvCv	→	CvCvvCvv	CvCiiCv	→	CvCiiCvv
						<b>CvCaaCv</b>
						<b>CvCaaGvCv</b>
				CvCaaCv	→	CvCaaCvv
						<b>²aCCiCatv,</b>
						<b>CuCaCaaGv</b>
						<b>CvCaaGvCv</b>

If we assume that Arabic and NW Semitic derived from a common Central Semitic ancestor, then Proto-Semitic or Proto-West Semitic would have to have had a plural system like that reconstructed for Proto-SW Semitic in Table 15. We would have to assume the following: (1) the extension of the method of internal plural formation to CvCCvC, CvvcvC, and CvCvvC nouns took place in Proto-West Semitic or Proto-Semitic, yielding the innovative plurals of groups (3), (4), (5), and (6); (2) that the variation in the forms of the group (1) plurals involving vowel length and the presence or absence of alif-prefix also developed in Proto-Semitic; (3) that these innovative plurals (along with the archaic /u/ plurals) were lost in Proto-NW Semitic returning the system back to the original situation; and (4) that *then* a second wave of analogic extension took place in NW Semitic, resulting in the mixed or double plurals. In other words, the NW Semitic facts cannot be interpreted as a simplification of a hypothetically archaic system preserved in SW Semitic. If the SW system is Proto-Semitic, then the NW Semitic system would represent a mysteriously incomplete simplification, combined with an unmotivated complication. As



noted above, the superimposition of a pleonastic *-t* in Ge<sup>c</sup>ez and some other southern languages has left the inherited SW Semitic plural system still recognizable and intact. If such a system had been inherited by NW Semitic, superimposition of the sound plural suffixes should have had the same result.

## VI. CONCLUSION

Hetzron<sup>116</sup> argues that morphological isoglosses should be given priority over phonological ones and that shared innovations should be given priority over shared retentions. These principles seem fundamentally sound. But in the case at hand they do not provide a decisive criterion for classification because the shared morphological innovations are contradictory. This is not in fact all that surprising. The classification paradoxes in Semitic are typical of the paradoxes one finds in any group of closely related languages spread out over a relatively contiguous territory. Anttila observes of Baltic Finnic (Estonian, Finnish, Karelian, etc.): "The complicated relations within Baltic Finnic cannot be rendered through a tree."<sup>117</sup> Crowley makes the same point about a set of Aboriginal languages of Australia and about the Melanesian languages spoken on the islands of Vanuatu.<sup>118</sup> The same points can be made for Germanic<sup>119</sup> and even for Indo-European generally.<sup>120</sup> Bynon gives cases of intimate grammatical borrowing in languages of Western Europe, the Balkans, East Africa, Central India, and Southeast Asia.<sup>121</sup> Finally, Zaborski<sup>122</sup> has most recently raised this issue with regard to the conflicting isogloss patterns in Semitic.

The solution in such cases seems to be to adopt a relationship model which combines the family tree with the wave model along the lines suggested by Southworth.<sup>123</sup> Classification is, after all, not a goal in itself but a way of drawing inferences from language data about prehistoric movements of, or contacts among, populations. It cannot be denied in light of the work of Hetzron, Rabin, Faber, and others that Arabic shares important morphological features with NW Semitic. Arabic also shares important morphological features with SW Semitic. The simplest plausible explanation of these facts is one of the following:

1. The linguistic ancestors of Arabic speakers belonged to a Proto-SW Semitic speech community. They separated from this community and came to live in close proximity with speakers of a NW Semitic language.
2. The linguistic ancestors of Arabic speakers belonged to a Proto-NW Semitic speech community. They separated from this community and came to live in close proximity with speakers of a SW Semitic language.

<sup>116</sup> "Two Principles," pp. 98–99.

<sup>117</sup> R. Anttila, *Historical and Comparative Linguistics* (Amsterdam and Philadelphia, 1989), p. 301, note.

<sup>118</sup> T. Crowley, *An Introduction to Historical Linguistics* (Auckland, 1992), pp. 240–49.

<sup>119</sup> See Hock, *Historical Linguistics*, pp. 444–50; Anttila, *Historical and Comparative Linguistics*, p. 303; and Crowley, *Introduction to Historical Linguistics*, p. 247.

<sup>120</sup> W. Lehmann, *Historical Linguistics* (London and New York, 1992), pp. 119–23; Hock, *Historical*

*Linguistics*, pp. 450–55; Anttila, *Historical and Comparative Linguistics*, pp. 303–6.

<sup>121</sup> T. Bynon, *Historical Linguistics* (Cambridge, 1977), pp. 239–56.

<sup>122</sup> See Zaborski, "The Position of Arabic within the Semitic Dialect Continuum," and idem, "Problèmes de classification des dialectes sémitiques méridionaux."

<sup>123</sup> F. Southworth, "Family-Tree Diagrams," *Language* 40 (1964): 557–65.

The actual facts, of course, are likely to have been much more complex, perhaps involving several migrations and contacts or perhaps involving different dialects of Arabic influenced to different degrees by neighboring languages.

In order to decide which of these scenarios is more plausible, we must ask "Of the shared features, which are likely to be due to contact or convergence and which to common inheritance?" The principal 'Central Semitic' isoglosses represent simplifications, specifically reductions of redundancy. If we assume that Proto-West Semitic inherited the Proto-Semitic perfect suffixes *-tu* (1), *-ka* (2m.) *-ki* (2f.), the tendency to eliminate redundant contrasts would favor leveling of the paradigm to *-tu*, *-ta*, *-ti* or to *-ku*, *-ka*, *-ki*. Since there are only two possibilities, the chance of two languages making the same change independently is quite high. Alternatively, (Proto-) Arabic may have replaced original *-k* suffixes with *-t* suffixes due to contact with NW Semitic. A reverse development (the inherited Arabic *-t* series of suffixes replaced by a series of *-k* suffixes) has happened independently in the modern Arabic dialect spoken in rural north Yemen, under the influence of contact with an unknown South Arabian language.<sup>124</sup> The loss of gemination on the second consonant of the imperfect represents an equally 'natural' development. Once the inherited stative with suffix conjugation had become established as the usual indicator of the perfective tense/aspect in West Semitic, the gemination of the second radical (yvCvCCvC), which originally served to distinguish the imperfective from the old prefix perfective (yvCCvC) became redundant, since the tense/aspect contrast was now adequately marked by the difference between suffix and prefix conjugations. Loss of gemination has also happened independently in southern Ethiopian Semitic.<sup>125</sup> Thus an explanation of these isoglosses in terms of borrowing or convergence is quite plausible.

The broken plurals can be plausibly interpreted as the result of an analogic development but the resulting system is nonetheless too idiosyncratic and full of redundancy to be the result of independent developments in the individual languages. Borrowing is possible (and has occurred in MSA, for example), but the detailed, complicated isogloss network is not consistent with a borrowing explanation. Isoglosses include idiosyncratic marginal forms (reflecting the first wave of analogy?) and the most productive forms in the languages in question (indicating a shared period in which analogic extension took place). Thus the most plausible conclusion is that Arabic is a SW Semitic language strongly influenced by contact with NW Semitic.

I do not presume that the preceding analysis represents the last word on this complicated issue. But I do hope that it has laid a foundation for reintroducing the rich evidence from noun plural morphology into the classification debate.

<sup>124</sup> See D. Testen, "Extra Arabic Affiliations of k-Yemeni," in Broselow, Eid, and McCarthy, eds., *Perspectives on Arabic Linguistics IV*, pp. 77-90.

<sup>125</sup> See Greenberg, "The Afro-Asiatic (Hamito-Semitic) Present," *JAOS* 72 (1952): 1-9; but compare

Leslau, "The Imperfect in South-East Semitic," *JAOS* 73 (1953): 164-66.



## THE EARLIEST *WAQF* FOUNDATIONS

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### I. INTRODUCTION

IN an article published in 1961, Claude Cahen complained that studies about the institution of *waqf* contained little reference to both its origins and evolution and only insofar as such origins and evolution had a bearing on later stages in the development of this institution. Cahen's criticism, however, mainly referred to studies written by students of Muslim law. One would have expected the historians, with their expertise, to have elucidated *waqf*'s early beginnings, but they did not live up to Cahen's expectations, and thus he spoke of a "négligence" in this field. He cited an article which preceded his own, written by Joseph Schacht, in which the latter developed a new methodological approach to the subject, albeit one which bore little significance regarding the historical information. Yet Cahen himself discussed the evolution of *waqf* from only the tenth century A.D. onwards. Schacht had at least discussed the truly early *waqfs*, those dating from the Prophet's time, and had described the *waqf* as an institution intended to finance the *jihād* in that it was used as the principal channel of support for the Muslim fighters for the Faith and, in fact, for the entire early Muslim brotherhood; it was the *ḥabs fī sabīli ʿillāhi* (see below).

Indeed, in order to comprehend the later *waqf*, as well as the contemporary institution, it is most essential to learn about its evolution, and a better understanding of this evolution requires knowledge of its beginnings. I shall attempt to present the origins of the institution in the present article, i.e., to describe how the *waqf* first came about and what its methods and principles were, as initiated and laid down by the Prophet and his right-hand men.<sup>1</sup>

The reader will see, from what follows below, that I find the general corpus of traditions—as preserved in the Arab sources—to be essentially genuine. I am well aware of the trend among some distinguished scholars which is now in vogue to consider most traditions regarding the period of the Prophet to be mere inventions dating from later periods, a kind of typological construction. It is clear that there was some embellishment by later generations, often encouraged by rulers for propaganda purposes. As I discuss below, traditionists were aware of such interests, which often conflicted with each other, and it is easy for us to detect them; basically, however, the facts we do have could not have been invented, and there is a fair amount of unanimity in the way they are presented.

The central details stem from a variety of literary sources: biographies of the Prophet, manuals of *ḥadīth* and of *fiqh*, chronicles, and so on. An early manual might have existed in which the various terms and elements pertaining to the early Muslim treasury, its revenue and expenditures, were explained and commented upon; these terms were: *aṣl*, *ṣadaqa*,

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<sup>1</sup> See J. Schacht, "Early Doctrines in Waqf," *Köprülü Armağanı* (Istanbul, 1953), p. 444; C. Cahen, "Réflexions sur le waqf ancien," *Studia Islamica* 14 (1961): 38 ff.



*habs*, *waqf*, *ghalla*, *hadiyya*, *fai*<sup>2</sup>, and *khums*. Matters of principles regarding, for instance, the Prophet's wealth and property and rules governing their inheritance, as well as the maintenance and support of the various families certainly were discussed. This early manual, a *ṣaḥīfa*, was allegedly owned by ʿAbdallāh b. ʿAmr b. al-ʿĀṣ and was called *al-Ṣādiqa*; ʿAbdallāh claimed to have written it while the Prophet dictated it to him. Furthermore, he received the *waḥṭ*, which was explained as a piece of land which the Prophet donated to the poor. The only direct quotation of the Prophet from the *Ṣādiqa* refers to matters of worship and allegedly was spoken by the Prophet to Abū Bakr. But the connection of the root *ṣ-d-q* with the *waḥṭ* might suggest that matters connected with land and estates were written about in this manual as well. Moreover, a similar tradition exists saying that Abū Bakr had notes taken from oral instructions given by the Prophet, as well as notes on precedents set by him, concerning matters of *ṣadaqa*. These were intended for Anas b. Mālīk, as the latter was appointed as the collector of the *ṣadaqa*. This tradition was transmitted by Thumāma, the grandson of Anas b. Mālīk (who died in the second quarter of the seventh century A.D.). This document, which contained the laws of the *ṣadaqa*, bore the seal of the Prophet. We can assume, though not with certainty, that such an early written document indeed existed, as was the case with the *Kitāb al-umma*, and that its main points were then transmitted orally, while the actual document remained hidden. In the case of the *Kitāb al-umma*, however, we have its original text; in cases regarding these economic matters, only small portions from the various *ḥadīth* collections have been preserved.<sup>2</sup>

## II. WAQF AND ṢADAQA

The earliest tradition concerning a donation of one's property to the Prophet, in order to support and finance future Muslim conquest, is the one concerning a certain Mukhayriq. He was a learned Jew (*ḥabr*), who is said to have accepted Islam very soon after the *hijra*; he fought at Uhūd and fell in battle; in his will, uttered by him to his family, he stated that if he were killed, all his property would be bequeathed to the Prophet. Mukhayriq was "the best of the Jews," said Muḥammad, and all the *ṣadaqāt* of the Prophet in Medina devolved from his property.

The most important tradition concerning the *waqf*, however, is that which preserved a saying allegedly uttered by the Prophet to ʿUmar ibn al-Khaṭṭāb: as ʿUmar received land in Khaybar, the Prophet asked him to make this land *ḥabs*, i.e., *waqf*, and use it as *ṣadaqa*: *in shiʿta ḥabasta aṣlahā wa-taṣaddaḡta bihā*. In simple, modern terms, we interpret this to mean that the title, or legal ownership, of the land should belong to the Muslim community, it having been declared *ḥabs*. The root *ḥ-b-s* was a synonym for *w-q-f*, both being used in the same sense as the Hebrew root *q-d-sh*. One may assume that over the generations, after the destruction of their Temple, the tradition of donating properties such as real estate and other types of property for communal purposes was quite well developed among the Jews. Similar traditions probably existed among the Christians and Manichaeans as well. There can be no doubt that the Arabs were aware of the existence of such

<sup>2</sup> See Ibn Saʿd, *Ṭabaqāt* (Leiden, 1905–40), vol. 2 (2), p. 125; Ibn Qutayba, *Maʿārif* (Göttingen, 1850), p. 230; Mughira b. Shuʿba disregarded the *ṣādiqa*, which was only to be expected from such a difficult character; al-Khaṭīb al-Baghdādī, *Taqyid* (Damascus, 1949), pp. 84f., 87; cf. A. Sprenger, "On the Origin

and Progress of Writing down Historical Facts among the Musulmans," *Journal of the Asiatic Society of Bengal* 25 (1857): 317; on the *Kitāb al-umma*, see my article "The Constitution of Medina," *Israel Oriental Studies* 4 (1974): 44–66.

foundations, particularly among those who were later to become known as “the protected people.” We may thus interpret the saying of the Prophet to ʿUmar with its simplest meaning, namely, that the land had become a *waqf* and belonged to the *umma*, to God, and to His Prophet. Whereas *ḥabs* means “title,” *ṣadaqa* means “possession,” i.e., “to avail oneself of the usufruct or regular revenue.” The property was thus not for personal enjoyment but, rather, for the needs of the *umma*. Obeying the enjoinder of the Prophet, ʿUmar turned that land into a *ṣadaqa*: “it shall not be sold, nor given away, nor inherited, and its usufruct should be spent (*taṣaddaqa*) on the poor, the relatives [of the Prophet] (*dhawūʿl, qurba*), and those who fight in God’s wars (*ṣabīluʿllāhi*).” There are some interesting variants, for example; instead of *taṣaddaqa bihā* we also read: *sabbil thamarahā*, i.e., give away its fruits for the *abnā al-ṣabīli*, i.e., the warriors (see pp. 134 and 135 below). Some traditionists have also preserved the name of the land, which was called Thamagh, which had earlier belonged to the *yahūd* of the Banū Ḥāritha. Furthermore, there seems to have been a dispute between the *Muhājirūn*, who said that it was ʿUmar who declared the first *ḥabs* in Islam, and the *Anṣār*, who said that the Prophet did. My interpretation of the meanings of the words *ḥabbasta* and *taṣaddaqa*, which appear in the Prophet’s saying, is clearly supported by another tradition preserved by Ṭabarī. It states that when ʿAmr ibn al-ʿĀṣ arrived in Baḥrayn, shortly after the Prophet’s death, he was asked by Mundhir b. Sāwā, who was about to die, how to handle the estate which he was about to bequeath; the advice ʿAmr gave him was *ṣaddiq bi-ʿaḳārīn ṣadaqatan tajrī min baʿdika*, that is, “make an estate into a *ṣadaqa*, which will produce an income [for you] which shall continue after your [own] lifetime.” Clearly, the original meaning of *ṣadaqa* was “usufruct.” There is also a tradition concerning ʿUmar ibn al-Khaṭṭāb, who it says “purchased 100 shares from the shares (*sahm, siḥām*) of the (*māl*) *al-muslimīn*, which is his *ṣadaqa*, which exists to this day [ca. 1060].” In other words, ʿUmar had turned that estate into a *waqf* or *ḥabs*; thus *ṣadaqa* originally referred to the usufruct and became another synonym for *waqf*, while also keeping the meaning of “usufruct” or income distributed to the *abnā al-ṣabīli*, etc. It eventually took on the meaning of the tax paid by Muslims.<sup>3</sup>

<sup>3</sup> Mukhayriq: Ibn Hishām, *Sīra* (Göttingen, 1858), p. 354; cf. Suhaylī, *Rawḍ* (Cairo, 1968), vol. 4, p. 310. ʿUmar: Bayhaqī, *Sunan* (Hyderabad, 1344–56), vol. 6, p. 159, and see variants therein; see also p. 161, where there is a list of the early important figures of Islam, beginning with Abū Bakr, who *taṣaddaqa* (made *ṣadaqa*), which referred mostly to houses and to usufruct destined for descendants (*ʿalā wulḍiḥi*), which is the beginnings of *waqf ahlī*, that is, the idea that usufruct goes to the offspring (should there be any). See my work on the early *heqdēsh*, *Documents of the Jewish Pious Foundations* (Leiden, 1976), pp. 1–4. See the traditions in Ibn al-Athīr, *Jāmiʿ* (Cairo, 1949–55), vol. 7, p. 314, taken from Bukhārī, Muslim, Nasāʾī, Abū Daʿūd, Tirmidhī, Thamagh, etc. See also Samhūdī, *Wafāʾ* (Cairo, 1908), vol. 2, pp. 273 ff.; Mawṣilī, *Ghāyat al-waṣāʾil*, MS Cambridge Or Qq33, pp. 78, 214, quotes Wāqidī, on whose sources he based his work; he stated that Thamagh was the first property to become *ṣadaqa* (*awwalu mālin tuṣuddīqa bihi fīʿl-islām*). See Suyūṭī, *Taʾrīkh* (Cairo, 1953), p. 137; Shiblī, *Maḥāsīn*, MS BM Or 1530, fol. 82a. A tradition parallel

to the one referring to ʿUmar is preserved concerning a slave called ʿUmayr, who participated in the Khaybar expedition and took some booty; the Prophet ordered him to leave part of it and to make a *ḥabs* of the rest for his family: *yuhbas li-ahlihi*; what he left was earmarked for purchasing horses, weapons, and supplies for the *jihād* (*fī ṣabīli ʿllāhi*). See Ibn al-Athīr, *Jāmiʿ*, vol. 3, p. 277. See Ṭabarī, *Taʾrīkh* (Leiden, 1964), vol. 1, p. 1894; I have a different interpretation of what ʿAmr says from F. M. Donner’s translation of Ṭabarī’s *Taʾrīkh*, vol. 10, p. 70, and his n. 449, which suggests the reading *taṣaddaq* (translation: “give your real property as an almsgiving”) is superfluous. ʿUthmān: Samhūdī, *Wafāʾ*, vol. 2, pp. 121, 366; Ibn ʿAbd al-Barr, *Durar* (Cairo, 1966), p. 217. See also J. B. Simonsen, *Studies in the Genesis and Early Development of the Caliphal Taxation System* (Copenhagen, 1988), pp. 26, 30 f., 32 f., who deals with the term *ṣadaqa* in its later meaning of “tax”; he explains it as meaning the voluntary tax, whereas *zakāh* meant the obligatory one; he further points out that it also means “a payment made to Muḥammad for personal consultation.”

More light may be shed on the earliest meaning of the term *ṣadaqa* by examining some of the early traditions. There are details regarding a fountain in Medina, *biʿr rūma* (or *ruʿma*), which was received by a man of the Banū Muzayna. ʿUthmān purchased one-half of it from him *wa-taṣaddaqa bihā*, i.e., he made use of one-half of its revenue and let the people of Medina benefit from the revenue. Subsequently, ʿUthmān purchased the remaining one-half at a low price and used it for a similar purpose, as *ṣadaqa*; of course, we may also interpret this as his having allowed the people of Medina to use it freely. A more detailed version adds that ʿUthmān, while pleading with those who came to kill him, told them of a well which had formerly belonged to a Jew who would not permit people to use it unless they paid a fee but that he, ʿUthmān, permitted free access to all. There was also another well, or spring, in Medina which was owned by a certain Abū Nayzar. Three freedmen of ʿAlī ibn abī Tālib had been given that well, one of them being Abū Nayzar. The well and its surrounding land were made into *ṣadaqa* and *waqf* by ʿAlī (. . . *ṣadaqatan . . . waqqaftuhā*); the *ṣadaqa*, i.e., the usufruct was given to the three freedmen. A written deed recorded these events: ʿAlī requested ink and a sheet (*ṣaḥīfa*) and wrote everything down. Although it appears that the three freedmen would have made a living working at the well and on the surrounding land, the first right to the usufruct was to pass to ʿAlī's sons, Ḥasan and Ḥusayn; thereafter, it would not be sold but would be enjoyed by "the poor" and by the *abnā al-sabīli*.

We next read about the first man who asked for a *ṣadaqa* from the Prophet, Ḥamza b. al-Nuʿmān b. Hawdha al-ʿUdhri al-Ḥazzāzī (or al-Jarrāzī), who was given (*aqṭaʿahu*) by the Prophet the place called Ramiya, which is in Wādīʾl-qurā, and Ḥamza lived there until the end of his days. At this time, *ṣadaqa* also had an aura of sanctity, or even taboo, as illustrated in the tradition about Ḥasan, ʿAlī's son and the grandson of the Prophet, who, upon putting a date, which belonged to the *ṣadaqa*, into his mouth was promptly admonished by the Prophet, who began shouting: "kakh kakh, spit it out! Don't you know that you are not to eat *ṣadaqa*?" The Prophet would not eat anything that came from *ṣadaqa* but only from a *hadiyya* [a personal gift]."

The use of *ṣadaqa* with the meaning *waqf* may also be seen in another tradition about the Prophet. We read that as he was eager to bring about the acceptance of Islam by the Arabs, he would often use material incentive; hence, in one case, he ordered that a certain person be given a flock of sheep belonging to the *ṣadaqa*.

Thus, we see that in the early period *ṣadaqa*, like its synonyms *waqf* or *ḥabs*, denoted the common property of the *umma*, the *māl al-muslimin*. Whatever remained from the booty acquired in the various expeditions after each fighter had received his individual share—the Prophet himself having received what was due to him—was considered *waqf*. We read, for instance, that "Shiqq and Naṭāh belonged to the Messenger of God when (Khaybar) was divided (*qusima*)."

Whereas Katība, Waṭīḥa, and Sulālim were among what became *waqf* (*wuqifa*). We see here the clear contrast between the roots *q-s-m* and *w-q-f* (or *h-b-s* or *ṣ-d-q*). Also, in ʿUmar's day, Bilāl advised him to divide the conquered villages and take the fifth (*khums*) for himself (i.e., for the treasury); ʿUmar, however, refused and decided to make them *ḥabs* (*uḥabbisuhu*, namely, the estates, *al-māl*) for the sustenance of the warriors and for all the Muslims—perhaps thinking of the future generations. Similarly, ʿUmar refused "to divide" Egypt after its conquest by ʿAmr ibn al-ʿĀṣ, which Abū ʿUbayd understood: "since he wanted it to be a *fayʿ* made into a *waqf* (*mauqūfan*) for the Muslims and their offspring, generation after generation."



In the early generations of Islam, we already find mention of *waqfs* designated by the early Muslims. It was said of the caliph ʿUthmān that he purchased a well called Arīs and also a property called al-Dūma from a clan from among the Anṣār, which had received them as its share of the estates of the Jews, in particular the Banū Naḍīr. Included among them was also Kaydama, originally the share of ʿAbd al-Raḥmān b. ʿAwf, who had received no fewer than 40,000 dinars for Kaydama from ʿUthmān. All those properties were used by ʿUthmān as *ṣadaqāt* (*taṣaddaqa bihā*) for the maintenance of the mothers of the *muʾminūn*, usually a reference to the wives of Muḥammad. It is possible that wives of the other important Muslims were included as well. ʿUthmān visited these estates and was offered a cluster of grapes, which he refused, since any fruit grown there was destined for either the people of the *qurba* (usually meaning the family of the Prophet), the poor, the orphans, or the *abnā al-sabīlī*; it was forbidden for anybody else, and whatever remained was to be left for the wild birds and animals.<sup>4</sup>

We find mention of the *waqf* of Thawbān, the freedman of the Prophet, established by him in Ḥimṣ (in Ibn Qutayba's version, *dāru ṣadaqatin*). Al-Ḥajjāj b. Yūsuf, who died in A.H. 95/A.D. 714, left 900 iron plates of armor, of which 600 had been proclaimed by him as *ḥabs* and *waqf* (*maḥbūsa mawqūfa*) for whoever chose to fight the heretics (the *munāfiqūn*, i.e., the *shīʿa*) and the Turks. Already by this time, wealthy Muslims were expected to designate a portion of their property for the establishment of a *waqf*. Even those who were in debt had to contact the authorities if their creditor died, and this was supported by the precedent ascribed to the Prophet, according to which any debtor had to address the Prophet upon the death of a creditor.<sup>5</sup> People were advised, however, not to allot more than one-third of their wealth for a *waqf*; naturally, this was intended to protect family members of the deceased from being deprived of their inheritance, a proscription which we find in Jewish *halakha* as well. Such an imperative was also ascribed to the Prophet, who is said to have told it to the conqueror of Iraq, Saʿd ibn abī ʿl-Waqqāṣ. Saʿd asked the Prophet how

<sup>4</sup> For *biʿr rūma*, Samhūdī, *Wafāʾ*, vol. 2, pp. 137 ff., and see there more versions and details on this well; Balādhurī, *Ansāb*, vol. 1 (Cairo, 1959), p. 536; it was close to *wādī shuʿba*, and the Prophet saw that a Muzanī (i.e., a member of the tribe of the B. Muzayna) used to sell its water; it was at the Prophet's initiative that ʿUthmān purchased that well and made it a *ṣadaqa*. ʿAyn Abī Nayzar: Samhūdī, *Wafāʾ*, vol. 2, pp. 348 f.; Abū Nayzar was the son of the king of Ethiopia, the *najjāshī*, who was the king at the time of the *hijra* to Ethiopia. Later, Muʿāwiya offered al-Ḥusayn, who was heavily in debt, 100,000 dinars for this well, but he refused to sell; see Māwardī, *Aḥkām* (Cairo, 1966), p. 169, who enumerates the *ṣadaqāt* of the Prophet: Mukhayriq; the properties of B. Naḍīr; Khaybar (Kaṭība, al-Waṭīḥ, al-Salām, and five other "castles"); half of Fadak; one-third of Wādīʿl-qurā (another one-third remained with the Jews, and a further one-third was given to the B. ʿUdhra). Māwardī does not seem to have known that in his day Jews were still living in Wādīʿl-qurā; see the sources in my *A History of Palestine* (Cambridge, 1992), p. 536 and n. 43 (the number of the Geniza letter mentioned there should be corrected to no. 58). Ḥamza b. al-Nuʿmān: Ibn al-Athīr,

*Usd* (Cairo, 1384–87), vol. 2, p. 57; Mawṣilī, *Wasāʾil*, fol. 188b. On Ḥasan, see Ṭayālīsī, *Musnad* (Hyderabad, 1321), p. 325; on *hadiyya* see Ibn Saʿd, vol. 1 (1), p. 113; Ibn Sayyid al-Nās, *ʿUyūn al-athar* (Cairo, 1356), vol. 1, p. 62. Mālik, *Muwatṭāʾ* (Cairo, 1967), p. 319, no. 899 contains a story relating to a man from the B. ʿAbd al-Ashhal who managed to embarrass and anger the Prophet by giving him the impression that he had asked to be given a camel from the *ṣadaqa*. On the flock of sheep, see Ibn Kathīr Abūʿl-Fidāʾ, *Shamāʾil* (Cairo, 1967), p. 74. On the division of Khaybar, see Abū ʿUbayd, *Amwāl* (Cairo, 1353), p. 56; on ʿUmar, see *Amwāl*, p. 58. One should read ʿUmar's saying as *yujzū ḥabala al-ḥabalin*, not as it is printed, i.e., they will produce "fruit of fruits," as in Aramaic פרי דפרי. On Arīs, see Samhūdī, *Wafāʾ*, vol. 2, pp. 121, 155.

<sup>5</sup> On Thawbān, see Ibn Qutayba, *Maʿārif*, p. 147; Ṭabarī, *Taʾrikh*, vol. 1, p. 1778. Thawbān died in A.D. 674. Thawbān made his house a *waqf*, not "the house was bequeathed (to him)" as understood by the English translator of Ṭabarī, I. K. Poonawala; see vol. 9, p. 142. On Ḥajjāj, see Ibn Zubayr, *Dakhkhāʾir*, p. 208. On the death of the creditor, see Suyūṭī, *Lubāb* (Cairo, 1954), p. 53.



much of one's properties should a man bequeath, to which he was answered: "one-third, and even this is [too] much." The first person to have willed one-third of his wealth under Islam, was al-Barr ibn Ma<sup>c</sup>rūr b. Ṣayḥar b. Khansā<sup>a</sup> b. Sinān b. <sup>c</sup>Ubayd, who, having been appointed as a *naqīb*, had participated at the <sup>c</sup>Aqaba meeting. His predecessor in matters of inheritance, who was said to be the first Muslim to have inherited his father's properties, was <sup>c</sup>Abdallāh b. al-Muṭṭalib b. Azhar b. <sup>c</sup>Abd <sup>c</sup>Auf b. <sup>c</sup>Abd al-Ḥarath b. Zuhra, of the Banū Quraysh; his father, <sup>c</sup>Abd al-Muṭṭalib, participated in the *hijra* to Ethiopia and died there; his son, <sup>c</sup>Abdallāh, was born in Ethiopia during the *hijra*.<sup>6</sup>

### III. PROPHETS DO NOT BEQUEATH ANYTHING

In contrast to the admonition directed at Muslims who in their wills dared to deprive their family of more than one-third of the wealth, it seems that Muḥammad's own offspring were not permitted to inherit any of his property. Undoubtedly, this was a result of the struggle which split the Muslim world, beginning with the war between <sup>c</sup>Alī and Mu<sup>c</sup>āwiya and continuing well into the Abbasid period. The resolution to limit the economic resources of <sup>c</sup>Alī's descendants gave birth to traditions which were mainly created around the alleged struggle of the Prophet's daughter Fāṭima to secure the inheritance of Fadak for herself. This had belonged to Jews, and their estates were said to have become the property of the Prophet. The story of Fadak is described in more detail below; but at this stage, I shall review the *ḥadīth* which was used to justify the rule stating that the Prophet could not bequeath his properties; it is very concise: "we do not bequeath anything; whatever we leave behind becomes *ṣadaqa*." (As seen above, during that period, *ṣadaqa* was used as a synonym for *waqf*.) This *ḥadīth* is said to have been recorded first by <sup>c</sup>Urwa b. al-Zubayr from the mouth of the Prophet's favorite wife, <sup>c</sup>Ā'isha; this was her response when the other wives of the Prophet asked, after his death, that <sup>c</sup>Uthmān b. <sup>c</sup>Affān be sent to the caliph Abū Bakr to obtain their inheritances. Abū Hurayra was also aware that the Prophet had said, "we do not divide [or distribute] to our heirs, not even one dinar; everything left after the expenses of my wives and supplies for my governor (*ʿāmil*, which, in fact, sounds somewhat strange used in this way), is *ṣadaqa*." <sup>c</sup>Alī is said to have argued with Abū Bakr and tried to fall back on the precedent of King Solomon, who inherited from his father, David. As Zachariah said: "he will inherit from me and will inherit from the people of Jacob" (there is no such passage in the book of Zachariah; perhaps Zach. 12:8 is meant: "he that is feeble among them shall be as David"). "The Prophet, however, did not bequeath anything when he died, not a dirham, or a dinar, or a slave, or a slave-girl, except for a white mule, his weapons, and land, which he left as *ṣadaqa*." Ibn <sup>c</sup>Abbās added: "a plate of armor which he pawned to a Jew for 30 *ṣāʿ* of barley."<sup>7</sup>

<sup>6</sup> No more than one-third: see Muqātil, *Tafsīr*, MS BM Or 6333, fol. 42; Mālik, *Muwaṭṭāʾ*, p. 259, no. 736, who adds to the words of the Prophet: "your heirs should rather be left rich than being made a burden on others." Shaybānī adds there that bequeathing more than one-third is permitted only if the heirs have agreed to it while their father was still alive; such an agreement becomes irrevocable; Ibn al-Jarūd, *Muntaqā* (Hyderabad, 1309), p. 443; Ibn Bābawayh, *ʿIlal* (Najaf, 1966), pp. 566 f., ascribes a similar saying to <sup>c</sup>Alī—he preferred a man who bequeathed one-fifth over one who bequeathed one-quarter and, similarly, a man who be-

queathed one-quarter over one who bequeathed one-third, which would be "as if he left nothing." On al-Barr, see Mawṣilī, *Ghāyat al-wasāʿil*, fol. 42b; his name is spelled differently in other sources; see Ibn Hishām, *Sira*, p. 297; Ṭabarī, *Taʾrīkh*, vol. 1, p. 2748. On <sup>c</sup>Abdallāh b. al-Muṭṭalib, see Shibli, *Mahāsīn*, fol. 22b; Ibn Ḥajar, *Iṣāba* (Cairo, 1328), vol. 2, pp. 371, 389 f.; al-Muṭṭalib was a nephew of <sup>c</sup>Abd al-Raḥmān b. Azhar; see Ibn Hishām, *Sira*, p. 211.

<sup>7</sup> Mālik, *Muwaṭṭāʾ*, p. 254 (nos. 726, 727); Ibn Saʿd, vol. 2 (2), pp. 85 ff.; Muslim, *al-Jāmiʿ al-ṣaḥīḥ*, vol. 5, pp. 152 f. See Balādhurī, *Ansāb*, vol. 1, p. 520; <sup>c</sup>Abbās

## IV. THE PROPHET'S REVENUE

What revenue did the Prophet receive from the beginning of the *jihāds* until his death? This matter is covered by somewhat contradictory traditions; one tradition states that his only share of the booty (*naflun*) came from the *khums*; i.e., the one-fifth taken from the booty prior to its being distributed among the warriors. Another tradition says that the booty comprised three categories of shares: a) the *ṣāfiya*, which had denoted from pre-Islamic times the share of the chief; b) the *khums* of the *khums*, i.e., one-fifth of the above-mentioned fifth; and c) a share of the booty similar to that of any of the warriors. They would say to the chieftain: *laka<sup>7</sup>l-mirbā<sup>c</sup> minhā wa<sup>7</sup>l-ṣafāyā wa-ḥukmuka wa<sup>7</sup>l-nashīta wa<sup>7</sup>l-fuḍūl*, "yours are the *mirbā<sup>c</sup>*, its quarter, and the *ṣāfiyas*, and the *ḥukm*, and the *nashīta*, and the *fuḍls*"; here we have three terms: *mirbā<sup>c</sup>*, a quarter [of the booty]; the *ḥukm*, which is the special portion due the leader; the *fuḍūl* (plural of *faḍl*), which are the remains of the booty after its distribution; and *nashīta*, which is a synonym for *ḥukm*. The *ṣāfiya* is clearly a pre-Islamic term, and I am unable to determine whether there was a true difference between it and any of the other terms. It is defined as a part of the booty which the leader would choose for himself prior to the distribution of booty to the warriors: "such as a sword, or a plate of armor, or a female prisoner, and the like, not excluding the leader's other shares." *Ṣāfiyya*, the Jewish woman taken captive in Khaybar, who later became one of the Prophet's wives, is said to have been given this name because she was the *ṣāfiya* of the Prophet.

Regarding the properties of the Banū Naḍir, it was said that a one-half portion was owned equally by the Prophet and the *muslimūn*, apparently a reference to the *umma*. The Prophet had it divided into 36 portions, each being further divided into 100 additional parts. The remaining one-half share was reserved by the Prophet for expenses needed for receiving visiting delegations (*wufūd*) and other similar expenses; in the sources, there are further variations relating to this issue.

\* \* \*

I shall now examine several traditions concerning the division of booty in general. There was a universally recognized principle that the one-fifth taken prior to the distribution of booty among the warriors would go to the Prophet for the needs of the *umma*; this was the *khums*. One-quarter of the *khums* would go to the Prophet and his family, a second

went to Abū Bakr, demanding the inheritance of his nephew Muḥammad. Abū Bakr was afraid that ʿAlī would soon come as well, asking for Fāṭima's share; he then promptly relayed the saying of the Prophet that he had left no inheritance, that all was now considered *ṣadaqa*. Ibn al-Jārūd, *Muntaqā*, p. 494, has an addition: "only that the family of Muḥammad will eat from these properties," i.e., will have the right to the usufruct for their sustenance. Abū ʿAwāna, *Musnad* (Hyderabad, 1966), vol. 4, pp. 135, 144 ff., 149, instead of *ṣadaqa* has *mālu ʿllāhi*, "the property of God"; this obviously also meaning *waqf*; Ibn al-Jawzī, *Zād al-masir* (Cairo, 1964), vol. 5, p. 209; Ibn al-Athīr, *Jāmiʿ*, vol. 3, p. 299, has various versions of the *ḥadīth*; in one of the versions, it is said that both ʿAlī and Abū Bakr raised claims to the properties of the Prophet; see also Ibn

al-Athīr, *Jāmiʿ*, vol. 10, pp. 386 f.; Ibn Abī ʿl-Ḥadīd, *Sharḥ nahj al-balāgha* (Beirut, 1963), vol. 4, p. 831; al-Zajjāj, *Maʿāni*, MS BM Or 8248, fol. 40b; Ibn Qayyim al-Jawziyya, *Badāʾiʿ* (Cairo, n.d.), vol. 4, p. 44; Yāfiʿi, *Mirʾāḥ* (Hyderabad, 1337-39), vol. 1, p. 60, adds a version ascribed to ʿĀʾisha: "the Messenger of God left not a dinar, nor a dirham, nor a sheep, nor a camel"; Ismaʿīl Ibn Kathīr, *Bidāya* (Cairo, n.d.), vol. 5, pp. 282 ff.; Samhūdī, *Wafāʾ*, vol. 2, p. 157; Suyūṭī, *Khaṣāʾiṣ* (Cairo, 1968), vol. 3, p. 312, has an addition ascribed to ʿAbdallāh b. ʿUmar: the Prophet said to ʿAlī: "be content if you have [in relation to myself] the status of Harūn towards Mūsā; only [remember there is] no prophecy nor legacy [i.e., you do not inherit the prophecy]." On the plate of armor: Ibn Saʿd, vol. 1 (2), p. 119; Ibn Kathīr, Abū ʿl-Fidāʾ, *Shamāʾil*, p. 225.

one-quarter to the orphans, a third one-quarter to the poor, and a fourth to the *abnā al-sabili*, meaning those who take part in the *jihād*. The right of the leader to choose a *ṣāfiya* for himself was always exercised, as was the case at the time of the Prophet, and this practice was respected by ʿUmar during the conquests, when some of the lands of the *mushrikūn* or the *dhimmi*s were confiscated, as happened at ʿAyn Tamar or near Damascus and elsewhere. For those lands that were divided, i.e., lands which became the property of Muslims, ʿushr, i.e., a tithe, had to be paid. The *ṣāfiya* lands were supposed to bring in *jizya* and *kharāj*. Conflicts and complaints constantly arose regarding the division of booty, such as occurred after Ḥunayn, when the *Anṣār* complained that too much had been left for the appeasement of the opponents (*al-muʿallafatu qulūbuhum*) or had been given to the Qurashites.<sup>8</sup>

The income received by the Prophet was intended, in the first place, to provide for the sustenance of his family, principally his wives. A tradition ascribed to ʿUmar ibn al-Khaṭṭāb mentions that provisions were scarce, indeed, no more than 12 ounces for each of his wives and daughters, and we must assume that either ounces of wheat or flour were meant. Clothing was also mentioned. The rest of the share of the booty would be given by the Prophet to his retainers (*li-aṣḥābihi*). It is said about ʿUmar ibn al-Khaṭṭāb that he continued to provide for the maintenance of the Prophet's widows; thus to Zaynab bint Ajjash he sent 12,000 dirhams, which was then the usual support paid to the Prophet's wives; to his wives Ṣāfiyya and Juwayriyya (bint al-Ḥārith), ʿUmar gave 6,000 dirhams each.

The date palms of the Jews (of the Banū Naḍir) were given by God to the Prophet personally; he gave away most of them to the *Muhājirūn*; what was left over were the *ṣadaqa* of the Messenger of God, and they passed into the hands of Fāṭima's sons, a problem which later was to cause great strife in the Islamic world (see pp. 138–140 below).

There were some articles of booty, however, which Muḥammad took for himself. Balādhurī provides the details: after the battle of Badr, he took his sword, Dhūʿl-Faqār; from the Banū Qaynuqāʿ, he took a plate of armor; from Dhāt al-Riqāʿ, he took a slave-girl (*jāriya*); from Muraythī, he took a black slave called Rabāḥ; from Banū Qurayza, he took Rayḥāna, daughter of Shamʿūn b. Zayd; and from Khaybar, he took Ṣāfiyya. Another tradition has it that there was another woman taken prisoner from among the Banū Qurayza called Rabiḥa, who was taken by the Prophet, who in turn gave her a plantation of date palms, which he owned, called “of the *ṣadaqa*” (*jaʿalahā fi nakhlin lahu yudʿā nakhluʿl-ṣadaqati*); thus these traditions, which contradict the other traditions about ownership by the Prophet, were inadvertently preserved. This, of course, supports the belief that those

<sup>8</sup> On the Prophet's shares, see Shaybānī, *Siyar* (Cairo, 1958), vol. 2, pp. 607 f.; on the various terms, see the notes, *passim*. *Ṣāfiya*, see Shaybānī, *Siyar*, p. 608; Balādhurī, *Ansāb*, vol. 1, pp. 514 f., 520; Ṣāfiyya: Ibn Ḥanbal, *ʿIlal*, p. 258; Suyūṭī, *Khaṣāʾis*, vol. 3, p. 288: Rayḥāna, another Jewish wife of the Prophet, was the one who was his *ṣāfiya*. On *ṣāfiya* in general, see Suyūṭī, *Khaṣāʾis*, vol. 3, p. 287; Ibn Sayyid al-Nās, *ʿUyūn*, vol. 1, p. 296; the discussion of the term *ṣawāfi* in M. J. Kister, “The Battle of the Ḥarra,” *G. Wiet Memorial Volume* (Jerusalem, 1977), pp. 41f. The root of the term (in its eighth form) has the meaning “to choose.” On the division into 36 portions, etc., see Ibn Sayyid al-Nās, *ʿUyūn*, vol. 2, p. 141. On the division of the

*khums*, see Abū ʿUbayd, *Amwāl*, p. 14; ʿAyn Tamar: Muḥāsibī, *Masāʾil* (Cairo, 1969), p. 230; Balādhurī, *Futūḥ* (Leiden, 1866), pp. 447, 449, 453, and 554. All these traditions must be taken *cum grano salis* as far as practice is concerned, but there are also many divergencies in the formulas, such as, for instance, the share of the Prophet in the *khums*. Balādhurī, *Ansāb*, vol. 1, pp. 514 f., has a version saying a fifth instead of a quarter. He also adds there a clause saying that slaves are excluded from having a share in the booty. On complaints, see Ṭabarī, *Taʾriḫ*, vol. 1, pp. 1683 ff.; 2953, where complaints are recorded against ʿUthmān, who showed favor to his family; Balādhurī, *Ansāb* (Jerusalem, 1936), vol. 5, p. 25.



traditions describing the Prophet as being completely deprived of any property or wealth, in fact, probably originated at a later period.<sup>9</sup>

The most genuine expression of the earliest Muslims' view of the economic rights of the Prophet is apparently the Qur<sup>ʿ</sup>ānic saying *wa-mā kāna li-nabi<sup>2</sup> in an yaghulla* (āl <sup>ʿ</sup>imrān, sūra 3: 155). It was not appropriate for a prophet to *yaghulla*, usually understood to mean, "to cheat." According to the slanderous accusations of some of the *munāfiqūn*, Muḥammad confiscated a piece of red cloth at Badr. The word *yaghulla* (to cheat) is used in this connection. A similar rumor was reported at Uḥud. The Prophet is said to have reacted by saying: *zanantum annā naghullu wa-lā naqsimu lakum*: "you were thinking that I shall *naghulla*, so I would not divide [the booty] among you." Here, it appears that the verb *ghalla* has the contrastive meaning and means "to appropriate." Indeed, the true meaning of *ghalla* is that contained in the nominal form, which is "yield," "proceeds." The *ghalla*, "the proceeds," cannot be made into *waqf*, says one tradition; "only land may be used this way." Thus here there is a clear distinction between the title of something and its usufruct or revenue. The Qur<sup>ʿ</sup>ān apparently advised that prophets, in general, should not aspire to revenue and riches. Naturally, this did not mean that the Prophet was unable to use *ṣadaqa* for himself. It was said that the first of the Banū Asad who brought *ṣadaqa* was Naqāda; he asked the Prophet what to bring as *ṣadaqa* and was told to purchase a female camel for milk which would also be good for riding, but one without its young. When he brought it, the Prophet milked it, drank the milk, blessed it, and blessed the Bedouin as well.

The motif of poverty, which was considered proper for a prophet, was embraced primarily by the Shī<sup>ʿ</sup>ite tradition; there we find condemnation of the rich, the prototypical rich man being ʿAbd al-Raḥmān b. ʿAwf, whom both ʿAlī and Abū Dharr opposed. Ka<sup>ʿ</sup>b al-Aḥbār, who said something in defense of ʿAbd al-Raḥmān, was repeatedly called *ibn al-yahūdīyya* and beaten by Abū Dharr with a bone from a camel's face. Another tale relates that ʿAlī severely scolded one of his daughters for having borrowed a necklace from the keeper of the *bayt al-māl*. ʿAlī used to hand over any money he received immediately to the *bayt al-māl*, from where he would distribute it, openly showing his disdain for worldly possessions. He is described as a man who, throughout his lifetime, was continually in battle, who never put on a new garment, never took land for himself, except for two places which supplied him *ṣadaqa* (i.e., those lands were made into *waqf* lands, and ʿAlī made use of the revenue from them). These places, al-Bughaybigħa and Yahbu<sup>ʿ</sup>, were also mentioned in what was said to have been his will; it was stated there that these places should be considered *waqfs* and could thus not be sold, given away, or inherited. In opposition to this rule, we read that the *ridḍa* people despised the common fund of the Muslims,

<sup>9</sup> On "12 ounces," see Tiḥāwī, *Mu<sup>ʿ</sup>taṣar* (Hyderabad, 1362), vol. 1, p. 289; Ibn al-Athīr, *Jāmi<sup>ʿ</sup>*, vol. 3, p. 310; he also gives further details on the supply of food: 80 *wasqs* (one and a half tons) of dates and 20 *wasqs* (ca. 300 kg) of barley per year; see *ibid.*, vol. 3, p. 252; vol. 11, p. 359. On the retainers, see Ibn Sayyid al-Nās, *ʿUyūn*, vol. 2, pp. 109 f. and on Zaynab, Mawṣilī, *Ghāyat al-wasāʾil*, fols. 21 f. Zaynab was the first of the Prophets' widows to die. On Ṣafiyya and Juwayriyya, see Balādhurī, *Ansāb*, vol. 1, p. 444. See also Dhahabī, *Yawākit*, MS BM Or 3371, fol. 63b: all properties of the Prophet were considered *ṣadaqāt* (i.e., intended to produce income for his family, etc.); on

the date palms, see Samhūdī, *Wafāʾ*, vol. 2, p. 159; Samhūdī took it from Abū Daʿūd's *Sunan* (see the Beirut edition, 1949–50), vol. 4, pp. 210 f. On spoils taken by the Prophet, see Balādhurī, *Ansāb*, vol. 1, pp. 443, 515. Cf. H. Lammens, *Etudes sur le règne du calife omaïyade Moʿāwīa I<sup>er</sup>* (Paris, 1908), pp. 237 f., who describes the matter of the lands in the northern Hījāz, which he says Muḥammad singled out as a *liste civile* for his personal needs and for those of his family; G. Lecomte, "Relation de la *saqifa* attribuée à Ibn Qutayba," *Studia Islamica* 31 (1970): 179, calls it "aumone légale."



appropriated (*ḥabbasū*) the goods of the *ṣadaqāt*, and divided it among their people, as did Mālik b. Nuwayra, Qays b. ʿAṣim al-Minqarī, and al-Afzaʿ b. Ḥābis al-Tamīmī.<sup>10</sup>

If we were to generalize, which is sometimes a necessity in order to obtain a more comprehensive picture of a historical process, we might say that the financing of Muslim exploits and, later on, of the early Muslim establishment, was achieved through two main channels: *waqf* and taxes. This twofold source of income principally depended on the ownership of real estate and the goods appended to it, i.e., the slaves and animals. The two well-known modes for establishing ownership in conquered places were either to divide the ownership among the Muslims or to allow the local people to keep ownership for themselves, provided they paid taxes. Here the general rule was that wherever fighting had been necessary, ownership would pass to, and be divided among, all the Muslims; but if a peaceful surrender occurred, then the title would be kept by the former owners; naturally, in practice, this seemingly clear-cut principle was a rule which allowed for many exceptions, lacking as it did clear guidelines. Of course, the income from *waqf* consisted of the usufruct provided by real estate owned by Muslims, whereas the main taxpayers were the *dhimmīs*. The Muslims, however, were also obliged to pay a tax, one called *ṣadaqa*, the same word used for the revenue of an estate turned *waqf* and also, as we have seen above, which was often used to designate a *waqf* itself. The purposes of the *ṣadaqa* paid by Muslims were identical to those of the *ṣadaqāt* of the Prophet (see above), that is, for the poor who did not ask for aid, known as the *fuqarāʾ*, as well as for those who did request it, the *masākīn*; for the freeing of captives who had been forced into slavery, the *riqāb*; for those who had been unjustly accused of a crime and had suffered heavy losses, the *ghārimūn*; and for the *abnā al-sabīli*, the Muslim warriors, a term later understood more literally as "the man who is on the path," namely, the traveler. Then there was the *zakāh*, generally understood as a part of the profit. The matter of taxes is beyond the scope of this paper; as is well known, the Muslim tax collectors and planners had precedents set down by previous rulers, be it the Byzantines or the Persians. As explained by Balādhurī: the master of the *kharāj* (in the Persian territories) would bring consecutive scrolls before the king every year; in them, he would record the sums of revenue from the *kharāj* as well as the various types of expenses and the yearly revenue of the treasury (*bayt al-māl*). For this

<sup>10</sup> On the red cloth, see Abū Ḥayyān, *Tafsīr* (Cairo, 1328), vol. 3, p. 100; Wāhidī, *Asbāb* (Cairo, 1968), p. 84; Muqātil, *Tafsīr*, fol. 97a: *man yaḡhlul*, "whoever cheats (this is his interpretation) and takes unjustly from the *fayʾ* will have to carry what he took around his neck on the day of resurrection"; Ṭikhāwī, *Muʿtaṣar*, vol. 1, p. 228: Muḥammad took some silk garments (*aqbiya*, plural of *qabāʾ*). Abūʾl-Suʿūd, *Tafsīr* (Riyad, 1974), vol. 1, p. 589: *ay yakhūna fīʾl-maḡhānim* (acts treacherously regarding the spoils); Ṭabarānī, *Muʿjam* (Medina, 1388), vol. 2, p. 15. al-Khāzin, *Lubāb* (Cairo, 1328), vol. 1, pp. 316 f.: *al-ghulūl huwa al-khiyāna*, which means "treachery"; some say one should read *yughalla*, meaning "that it is forbidden to deceive a prophet." A similar tradition, obviously from a Shīʿite source, is preserved about ʿAlī. The Muslims accused him of having taken a slave girl (*jāriya*) for himself from among the captives taken with the *khums*, the fifth having been kept for the needs of the *umma*. This en-

raged Muḥammad, who denied it and again proclaimed that his heir was ʿAlī; see al-Ṭūsī, *Āmālī* (Baghdad, 1964), vol. 1, p. 255; only land (and the like, i.e., real estate and animals) can be made into *waqf*: Ibn Ḥanbal, *al-Waraʿ* (Cairo, 1340), p. 48. The meanings of the root *gh-l-l* in Arabic parallel those of Aramaic ܠܠܝܠ. On Naqāda, see Mawsilī, *Ghāyat al-wasāʾil*, fol. 20. On the Shīʿite tradition, see Warrām, *Tanbih* (Najaf, 1964), vol. 1, p. 177; vol. 2, pp. 19, 93; on ʿAlī's daughter, *Tanbih*, vol. 2, pp. 3 f.; on his disdain for worldly goods, see Naysābūrī, *Rawḍa* (Najaf, 1966), p. 117. On ʿAlī's ways, see Balādhurī, *Futūh*, p. 14, and Jāḥiẓ, *Uthmāniyya* (Cairo, 1955), p. 98: ʿAlī was very rich when he died and left many *waqfs*. See Yaʿqūbī, *Mushākala* (Beirut, 1962), p. 15; on his will, see ʿAbd al-Razzāq, *Muṣannaḡ* (Beirut, 1972), vol. 10, pp. 374 f.; Firūzābādī, *Maḡhānim* (Riyad, 1969), pp. 59, 290 f., 440; on *rida* people, see Ibn Hubaysh, *Dhikr al-ghazawāt*, MS Leiden Or 343, fol. 13.

tax, early Muslim writers continued to use the Persian term *ṭasq* (which is found in the Babylonian Talmud as well) instead of the word *kharāj*.<sup>11</sup>

## V. ARMING THE UMMĀ

In a thorough review of the relevant sources and their conclusions, it has already been shown by F. Altheim and R. Stiehl how Muḥammad's early campaigns served as a source for acquiring a steady supply of horses, camels, and arms, which were all needed for his cavalry. Indeed, the traditions state that he used the *ḥabṣ*, which he took from the Jews (mainly from the Banū Naḍīr) "for supplying his people (*al-ahl*) during one year, the rest being used for horses and arms *fi sabīli ʿllāhi*." Arabs were also called on to donate horses: whoever made a horse a *ḥabṣ*, was promised a favorable future in the world to come.

The expression, *fi sabīli ʿllāhi*, found in the Qurʾān and also used whenever the purposes of the early *waqf* were mentioned, was clearly a reference to the *jihād*, with the meaning "the support and equipment of the warriors"; just as *ibn al-sabīli* meant "the warrior." This latter term, however, was misunderstood by Muslim traditionists and commentators as meaning "the poor," or "the traveler." R. Paret has already pointed out that there was a close connection between the expressions *fi sabīli ʿllāhi* and *ibn al-sabīli* and that the latter term mainly referred to the *Muhājirūn*, who were the destitute. In my view, however, any Muslim warrior was meant. That Muslim tradition did not preserve the genuine meaning of the expression is shown by the rather diverse ways in which it is explained, meanings mainly inspired by the common sense of the individual interpreter. The early Qurʾān commentators, however, saw the main purpose of the *waqf* as financing the *jihād*, thus *ḥabṣ fi sabīli ʿllāhi*.<sup>12</sup>

## VI. WHERE DID THE DONATIONS COME FROM?

Balādhurī's work contains a tradition describing the way Muḥammad funded his earliest activities; it states that in order to encourage his people (*aṣḥābahu*), he distributed money among them, which he borrowed from three rich men of Mecca: ʿAbdallāh b. Abī Rabīʿa,

<sup>11</sup> On the purposes of the *ṣadaqa*, see Muqātil, *Tafsīr*, fol. 13b–14; on *zakāh*, see Mawṣilī, *Nihāya*, MS BM Or 2981, fol. 45b; Balādhurī, *Futūḥ*, p. 464, quoting Ibn al-Muqaffaʿ. Abū ʿUbayd, *Amwāl*, p. 53: "on their heads *jizya* was imposed, and on their lands *ṭasq* . . . that is, *kharāj*"; see *Amwāl*, pp. 11 f.; it is the story of the Bedouin who was holding a piece of leather on which it was written by the prophet himself, concerning the B. Zuhayr b. Uqaysh b. ʿUkl: ". . . you should bring the *zakāh* . . . and one fifth (*khums*) of the spoils," etc. According to Burāqī, *Taʾrīkh Kūfa* (Najaf, 1968), p. 102, the land tax, as imposed by ʿUmar, had to be paid every year at the rising of the *shīʿra* (= Syrius); on the principle of payment according to the profit from the land (*ʿafw* or *faḍl*), see M. M. Bravman, "The Surplus of Property," *Der Islam* 48 (1963): 28 f.; and on the role of the landowners (*dahāqīn*) in Persian regions in the levy of the taxes and handing them over to the Muslims, see M. A. Shaban, *The ʿAbbasid Revo-*

*lution* (Cambridge, 1970), p. 91. See also, for a general insight into the matters of *ḥabṣ* *ghanima*, etc., the now classic works: F. Løkkegaard, *Islamic Taxation* (Copenhagen, 1950), pp. 38–49; D. C. Dennett, *Conversion and the Poll Tax* (Cambridge, Mass., 1950), pp. 3–13.

<sup>12</sup> F. Altheim and R. Stiehl, *Finanzgeschichte der Spätantike* (Frankfurt am Main, 1957), pp. 123 ff.; on use of the *ḥabṣ*, see Balādhurī, *Ansāb*, vol. 1, pp. 518 f.; Ibn al-Athīr, *Jāmiʿ*, vol. 3, p. 312; Maqrīzī, *Imtāʿ* (Cairo, 1941), p. 182; Suyūṭī, *Muʿtarak* (Cairo, 1970), vol. 1, p. 547; see Suyūṭī, *Khaṣāʾiṣ*, vol. 3, p. 287, which has another version: what was left after the expenses of his *ahl* was made into a *waqf*; in his words, into *mālu ʿllāhi*, "God's property"; so also Ibn Kathīr, *Bidāya*, vol. 5, pp. 287 f.; on the call for horses, see al-Khāzin (in the name of Abū Hurayra), *Lubāb*, vol. 1, p. 132; on *fi sabīli ʿllāhi*, see Bukhārī, *Adab* (Cairo, n.d.), p. 55: it is the war of the Muslims against the pagans (*mushrikūn*). On *ibn al-sabīli*, "the traveler,"

from whom he borrowed 40,000 dirhams; Šafwān, who lent him 50,000; and Ḥuwaytib b. ʿAbd al-ʿUzzā, who lent him 40,000. After he conquered the Banū Hawāzin, he returned whatever he owed them from the confiscated booty. The financing of Tabūk was probably carried out by ʿUthmān and Abū Bakr and other rich Meccans. Another donation from an Arab was that of Hudhayfa b. Ḥisl (Husayl) al-Yamān; Ḥisl was killed by the Muslims at Uhud by mistake, and the Prophet ordered blood money to be paid to his son, who, upon receiving the money, turned it into *ṣadaqa* for the Muslims. Sometimes, in order to strengthen the motivation of the Muslim warriors, the Prophet would relinquish his right to the *khums* and leave the spoils completely to whoever committed a brave deed, such as happened at Ḥunayn. There he proclaimed that whoever killed a *kāfir* would have the spoils due the Prophet himself. Abū Ṭalḥa killed twenty *kāfirūn* and thus took all the spoils as reward for his bravery.

It is clear that Muslim tradition does not reveal much with regard to early donations by Arabs as *waqf*. On the contrary, as we have already seen, the Prophet would sometimes relinquish his rights to the holy funds for the sake of *muʿallafatu al-qulūb*, i.e., bribing an enemy from among the Arabs or encouraging individual fighters.<sup>13</sup>

As I have already indicated above, the main source of the first accumulation of wealth of the *umma*, already known as *ṣadaqāt* in the earliest traditions, were the properties owned by the Jews of Medina. To quote Ibn Saʿd: “the first *ṣadaqa* in Islam, when the properties [producing it] were made *waqf* by the Messengers of God, were [the properties] left when Mukhayriq was killed at Uhud [having willed his properties to the Prophet] . . . ; so the Prophet collected them and made them a *waqf* (*taṣaddaqa bihā*).” ʿUmar Ibn ʿAbd al-ʿAzīz was told by the old men of Medina, where many of the *Muhājirūn* and the *Anṣār* still lived that “the origin of the manor farms (*ḥawāʾiṭ*) of the Prophet, that is, the real estate (*bīʿa* is evidently what is meant here) which he made into *waqf* are the properties (*amwāl*, which may also refer to plantations of date palms) of Makhayriq . . . ; the Prophet’s sustenance (*kāna yaʿkulu minhā*) also came from there.”

Mukhayriq is said to have been the wealthiest of the Jews of the Banū Qaynuqāʿ: some said he was of the Banū Naḍir. A number of traditionists, among them al-Zuhri, said that the properties of Mukhayriq were divided among the Muslims by the Prophet. Thus, the real *waqf* of the Prophet were the seven manor farms of the Jews of Banū Naḍir, Aʿwāf, Šāfiya, Dalāl, Mithab, Burqa, Ḥasnā, and Mashrabit Umm Ibrahim; they had previously belonged to Salām b. Mishkam of the Banū Naḍir. Still, another tradition states that the Prophet had three *ṣafāyā* (plural of *ṣāfiya* or *ṣafiyya*, referring to the share of the leader); [the properties of] the Banū Naḍir were *ḥabs* for his expenditures: Fadak was for the warriors (*abnā al-sabili*); as for Khaybar, the Prophet received three portions of its *khums*, of

for example, see Muqātil, *Tafsir*, fol. 13b–14; see Abū ʿUbayd, *Amwāl*, p. 14: the poor traveler. Abu Ḥayyān, *Tafsir*, vol. 2, p. 70, states that these were Arab nomads who claimed that they had no provisions and could not equip themselves. See R. Paret, *Grenzen der Koranforschung* (Stuttgart, 1950), pp. 6; 25, n. 22; see G. R. Puin, “Der Diwan von ʿUmar ibn al-Ḥaṭṭāb” (Ph.D. diss., University of Bonn, 1970), pp. 43 f., 48 f.; Schacht, “Early Doctrines,” p. 444.

<sup>13</sup> For what the Prophet borrowed, see Balādhuri,

*Ansāb*, vol. 1, p. 363; Šafwān is ibn Umayya, who according to Ibn Ishāq lent the Prophet weapons; see Ibn Hishām, *Sira*, p. 842; as for ʿAbdallah, he came from the rich clan of the B. Makhzūm, and his father’s name was ʿAmr; see Ibn al-Athir, *Usd*, vol. 3, pp. 232 f. On Tabūk, see Balādhuri, *Ansāb*, vol. 1, p. 368; Ibn Hishām, *Sira*, p. 895; Hudhayfa: Ṭabari, *Taʾrikh*, vol. 1, pp. 1422 f.; on Ḥunayn, see Baghawī, *Mishkāt al-maṣābiḥ* (Damascus, 1961), vol. 2, p. 4002.



which two went to the Muslims, and one portion was used for the Prophet's family expenses; the remaining balance (if any) went to the poor (*fuqarāʾ*) among the *Muhājirūn*.<sup>14</sup>

Several manor farms, pieces of land, and wells from among the properties confiscated from the Jews are counted by the sources as having been made into *waqf* (or *ḥabs* or *ṣadaqa*; their meanings appear to be identical here). Thus, we find Rātij, which according to Samhūdī was an *aṭm* (or *uṭm*, or *uṭum*) which had belonged to the Jews (*aṭm* appears to have meant a more or less fortified compound of solid construction); it was located in the Sāfila, the lower part of Medina. Shiṭmān, had been owned by the Banū Qurayza. Ḥarrat Wāqim, as its name indicates, was apparently a volcanic plateau where the famous Battle of the Ḥarra took place; it had been called Ḥarrat Banī Qurayza, since that tribe had inherited its southern sector. Ḥusayka, which was in the vicinity of the *masjid al-faṭḥ*, had also been inhabited by the Jews. Jaḥḥāf, which was situated in the northern part of Medina, the ʿĀliya, had an *aṭm*, which had also belonged to a Jew. Jawwāniyya was in the northern part of Medina, and the *āṭām* (plural of *aṭm*) there had belonged to Jews and were called Širār and Riyān. Buwayla, which was another piece of land owned by the Banū Naḍir, was given by the Prophet to Zubayr b. ʿAwwām (his maternal cousin) and to Abū Salama. Of the wells of Medina, we read about the *biʿr ruʿma* (or *rūma*, mentioned on p. 128 above), which was initially purchased from its Jewish owner by ʿUthmān for 40,000 dirhams in order to supply water to the Muslims in Medina, on the advice of the Prophet, who allowed ʿUthmān to keep its revenue for himself. In another version of this tradition, the purchase of the well occurred when ʿUthmān had already been made caliph, and by then its owner was an Arab of Banū Muzayna. Still, another version has it that ʿUthmān made it into a *waqf* (*taṣaddaqa bihā*), and the Prophet declared: "the best of the *ṣadaqāt* is that of ʿUthmān." The well of Arīs had also belonged to the Banū Naḍir, together with a piece of land called Kaydama and a farm called Dūma; it became a *waqf* for the Prophet's wives. Arīs is said to have been a Jew of the Banū Muḥammam; there are several different versions connected with this well. Another well was known as *biʿr ghādir*, which had belonged to the Banū Qurayza, together with the land called Fuqayr, which, evidently, was adjacent to it, located in the upper part (al-ʿĀliya) of Medina.<sup>15</sup>

<sup>14</sup> Ibn Saʿd, *Ṭabaqāt*, vol. 1 (2), pp. 182ff.; most traditions are attributed to Muḥammad b. Kaʿb, an offspring of the slaughtered B. Qurayza; see Balādhurī, *Ansāb*, vol. 1, p. 518; Ibn Jawzī, *al-Wafāʾ bi-ahwāl al-muṣṭafā* (Cairo, 1966), vol. 1, p. 58; vol. 2, p. 476; Mawṣilī, *Ghāyat al-wasāʾil*, fol. 78. Ibn Saʿd, *Ṭabaqāt*, vol. 2 (1), p. 41; Ibn Shabba, *Taʾriḫ al-Madīna* (Mecca, 1399), vol. 1, pp. 173 ff. Ibn Sayyid al-Nās, *Uyūn*, vol. 1, p. 208; see the right vocalization of the names of those properties in Yāqūt, *Buldān* (Leipzig, 1866), article "Mithab." Abū ʿUbayd, *Amwāl*, p. 7; Ibn al-Jarūd, *Muntaqā*, p. 493; Shaybānī, *Siyar*, vol. 2, pp. 610 f., who adds that Muḥammad allotted (*aqṭaʿa*) land, both arable and uncultivated from the B. Naḍir's property to his close companions, such as Zubayr, Abū Bakr, ʿUmar, and also to Suhayl and to ʿAbd al-Raḥmān b. ʿAwf; thus also Ibn al-Athīr, *Jāmiʿ*, vol. 7, p. 327; and the same in Maqrīzī, *Khiṭaṭ* (Beirut, n.d.), vol. 1, p. 171; see also: Ibn ʿAbd al-Barr, *Durar*, p. 220; Baghawī, *Mishkāṭ al-maṣābiḥ*, vol. 2, p. 421;

Ibn al-Athīr, *Jāmiʿ*, vol. 2, p. 454; Ibn Kathīr, *Bidāya*, vol. 4, p. 79; vol. 5, pp. 28 f.; Maqrīzī, *Imtāʿ*, p. 298, writes about a differentiation, which obviously occurred during much later times, between *ṣadaqa*, which were the sums paid to the orphans and the poor, and *fayʿ*; when the orphan grew up, he would be transferred to the *fayʿ* being under an obligation to participate in the *jihād*; evidently, the term *fayʿ* came to mean a kind of regular payment to the military; see also, Suyūṭī, *Durr* (Cairo, 1314), vol. 6, p. 192; Suyūṭī, *Muʿtarak*, vol. 1, p. 547; Samhūdī, *Wafāʾ*, vol. 2, pp. 153 ff. Cf. S. A. El-Ali, "Muslim Estates in Hijaz," *Journal of the Economic and Social History of the Orient* 2 (1959): 248 ff.

<sup>15</sup> Rātij, Samhūdī, *Wafāʾ*, vol. 2, p. 309; see the additional sources cited by M. Lecker, "Muḥammad at Medina: A Geographical Approach," *Jerusalem Studies in Arabic and Islam* 6 (1985): 29 ff., 40 f.; the B. Jadhīmāʾ and other Arabs who had taken it over, did so—I assume—after the expropriation of the Jews. See also, Lecker, *Muslims, Jews, and Pagans* (Leiden,



In light of what we have found concerning the earliest *waqf* foundations as having earlier been the properties of the Medinan Jews, the usual notion that the first *waqf* was the one created in Khaybar cannot be correct. Of the three parts of Khaybar: Katība, Shiqq, and Naṭāh, it is said that it was Katība which was considered the *khums* which belonged to Muḥammad. It served mainly for the support of his family and his retainers. As agreed to by the Jews there, however, one-half of the yield of the date palms and the grain was kept by them. It is only after the Prophet's death that Abū Bakr, ʿUmar, and ʿAlī made a portion of Khaybar into a *waqf*, according to a tradition contained in Wāqidi's *Maghāzī*. Other traditions have the Prophet himself making Katība, Waṭiḥa, and Sulālim directly into a *waqf*; several of the Prophet's wives also received pieces of land in Khaybar, since they preferred this arrangement to the alternative, which was to receive regular supplies of food.<sup>16</sup>

## VII. FADAK

Fadak was another area expropriated by Muḥammad from the Jews of Ḥijāz. It is said that the Prophet had a share in its lands and that after his death, his wives went to ʿUthmān b. ʿAffān and asked him to apply on their behalf to the caliph Abū Bakr, stating that because they were the Prophet's heirs, they were entitled to receive that share. ʿĀʾisha, however, made it clear to them that Muḥammad had said: "we [the prophets] do not bequeath anything; whatever we hand down is *ṣadaqa*" (i.e., *waqf*). So the wives relinquished their rights to receive a share in the land. A similar request was made by the Prophet's daughter, Fāṭima, to whom it was answered that it was her father's will that as long as he should live these properties would serve as the *tuʿma*, i.e., sustenance for himself and his family, whereas after his death, it would go to all Muslims. In another version, Abū Bakr promised to continue to provide to whomever the Prophet had previously provided for, but he refused to hand over the properties to Fāṭima. At a later stage, Fāṭima also approached ʿUmar, whose reply to this request was identical to that of Abū Bakr. She never again spoke to Abū Bakr or to ʿUmar before her death, which occurred forty days (some report seventy) after that of the Prophet.<sup>17</sup>

1995), pp. 32 ff. On Shiṭmān, see Samhūdī, *Wafāʾ*, vol. 2, p. 328; Ḥarrat Wāqim: Samhūdī, *ibid.*, p. 289; cf. Lecker, *Muslims, Jews and Pagans*, pp. 56, 67; on Ḥusayka, see Samhūdī, *Wafāʾ*, vol. 2, p. 291; Lecker, *Muslims, Jews, and Pagans*, pp. 29 f.; on Jaḥḥāf, Samhūdī, *Wafāʾ*, vol. 2, p. 279; on Jawwāniyya, *Wafāʾ*, p. 283. On Buwayla, Ibn Sayyid al-Nās, *ʿUyūn*, vol. 2, p. 51; on *biʾr rūma*, see Balādhuri, *Ansāb*, vol. 1, p. 536; Ibn Shabba, *Taʾriḫ*, vol. 1, pp. 152 ff.; Samhūdī, *Wafāʾ*, vol. 2, pp. 137 ff., has many traditions regarding *biʾr rūma*; one of them tells how Caliph ʿUthmān pleaded with those who were about to murder him, citing his merits concerning *biʾr rūma*, which he made available to the people of Medina without any payment. Balādhuri, *Ansāb*, vol. 1, p. 536 (only 400 dirhams, and Jews were not mentioned). On Aris and Kaydama, see Samhūdī, *Wafāʾ*, vol. 2, pp. 121, 366; Ghādir, Fuqayr: Samhūdī, *Wafāʾ*, p. 155.

<sup>16</sup> Khaybar allegedly became the first *waqf*: Shibli, *Maḥasin*, fol. 82a; see Wāqidi, *Maghāzī* (London, 1966), pp. 682 ff.; Abū ʿUbayd, *Amwāl*, p. 56; the re-

maining part of Khaybar was divided by the Prophet among the fighters who participated at Hudaybiyya. Balādhuri, *Ansāb*, vol. 1, p. 352; Baghawī, *Mishkāṭ al-maṣābiḥ*, vol. 2, p. 403; Ibn al-Athīr, *Jāmiʿ*, vol. 3, p. 274; some wives preferred land: *ibid.*, vol. 3, p. 315; vol. 5, p. 383. See also Ibn Sayyid al-Nās, *ʿUyūn*, vol. 2, pp. 140 f.; Ibn Kathīr, *Bidāya*, vol. 4, pp. 199 f.; Suyūṭī, *Khaṣāʾiṣ*, vol. 2, p. 61; here ʿUmar ibn ʿAbd al-ʿAzīz receives information about the way the Prophet decided on issues relating to Khaybar and its spoils.

<sup>17</sup> Balādhuri, *Ansāb*, vol. 1, pp. 519 f.; Tirmidhī, *al-Jāmiʿ al-ṣaḥīḥ* (Cairo, 1931), vol. 7, pp. 109 ff. Ibn Jārūd, *Muntaqā*, p. 494; Abū ʿAwāna, *Musnad*, vol. 4, pp. 144 ff.; for the time of Fāṭima's death, see Saʿīd ibn Biṭriq, *Taʾriḫ*, ed. Cheikho (Leipzig, 1906–7), vol. 2, p. 7; see also ʿAbd al-Jabbār, *Tathbit* (Beirut, 1386), vol. 1, pp. 229 f., who adds a version saying that Abū Bakr gave the properties of ʿAlī to use them the way the Prophet had done. Baghawī, *Mishkāṭ al-maṣābiḥ*, vol. 2, p. 421; the Umayyad Marwān abolished the *waqf* status of Fadak and divided it (*aqṭaʿahā*), but

On the other hand, additional traditions, those preserved mainly by the Shīʿite sources, contain a somewhat different story. They state that the properties in Fadak were unjustly seized by the Umayyads, but that the Abbasids returned them to ʿAlī's [and Fāṭima's] heirs; this happened under al-Mahdī. The Prophet was told by the angel Jibril to hand over Fadak to Fāṭima, as ordered by God; then Muḥammad said to Fāṭima: "Oh Fāṭima, God has ordered me to hand over Fadak to you," and, thereafter, Fāṭima confirmed it by saying: "Indeed, oh Messenger of God, I receive it from God and from you." Abū Bakr believed her and wrote her a document confirming it, but then ʿUmar went to her, snatched the document, spat on it, erased it, and tore it up. According to this kind of tradition, that Fadak had belonged to Muḥammad's family, and thus also to Fāṭima and to ʿAlī after him, was not in doubt. Abū ʿAbdallah (probably the *imām* Jaʿfar al-Ṣādiq) was asked why ʿAlī did not reclaim Fadak when he became caliph, and he said because ʿAlī knew that God punishes the evildoer (*al-ẓālim*); he further declared, however, that the object of the evil deed was not important anymore; just as Muḥammad did not require that his house in Mecca be returned to him when he came back to it as victor. That house was held by ʿAqil ibn abī Tālib, but Muḥammad said: "People of my family (*ahl al-bayt*) do not ask that anything taken from us unjustly (*ẓulm*) be returned." In another tradition, it is said that Abū Bakr and ʿUmar plotted to have Khālīd ibn al-Walīd murder ʿAlī over the issue of Fadak, but this did not occur. Abū Bakr was said to have come to Fāṭima just before she died, asking for her forgiveness, which she granted. Many details abound concerning the *ṣadaqāt* of ʿAlī, which were intended for his sustenance and that of his family; there were lands not only in Medina, but also in Wadīʿl-qurā and Fadak: in Fadak he was said to have possessed a *wādī* called Raʿya where there was a plantation of date palms, another *wādī* called al-Aṣḥan, a place called al-Qaṣība, and a *wādī* called Turʿa. A document which appears to be genuine contains ʿAlī's instructions concerning these properties, all of which he bequeathed to his older son, Ḥasan.<sup>18</sup>

In view of these Shīʿite traditions, other traditions emerged whose tendency was to justify the denial of property and wealth to the Shīʿites. Thus Ibn Qutayba states that ʿUthmān already had made Fadak into a private property of the Umayyad Marwān: "*aqṭaʿa* (Fadak) Marwān." What may be considered as an attempt to blacken ʿAlī's name—though the facts are probably true—can be found in the writing of the Spanish scholar Ibn Ḥazm, according to whom ʿAlī had amassed great wealth, as many properties as he had wanted, and that upon his death he left four wives and nineteen *umma waladin*, in addition to servants and slaves; he left twenty-four sons and daughters, to whom he bequeathed estates and farms in the manner of the wealthy of the time. Karājili mentioned, among other events that seemed quite odd to him, that whereas Fāṭima was not granted her wish when she asked for Fadak, ʿĀʾisha, on the contrary, was granted the dwelling in which the Prophet had housed her. These issues caused conflict and were the cause of the grudge and hatred

<sup>18</sup> Umar ibn ʿAbd al-ʿAzīz returned it to its former status; see also Ibn al-Athīr, *Jāmiʿ*, vol. 3, pp. 312 ff.; vol. 10, pp. 286 ff.; Dhahabī, *Taʾrīkh* (Cairo, 1367–69), vol. 1, pp. 331, 346 f., vol. 4, pp. 169 f.; Samhūdī, *Wafāʾ*, vol. 2, pp. 57, 157 ff., 190, 355 (in his version, Fāṭima died six months after Muḥammad); ʿIṣāmī, *Simṭ al-nujūm*, MS Paris 1563, fol. 266b.

<sup>18</sup> See Kulaynī, *al-Kāfi* (Tehran, 1957–61), vol. 1,

p. 543; Ibn Tāwūs, *Tarāʾif* (Tehran, n.d.), p. 68; Ibn Bābawayh, pp. 154 f., 190 ff.; on Fāṭima's forgiveness, see Ṭabarī al-Muḥibb, *Riyāḍ* (Cairo, n.d.), vol. 1, p. 120; ʿAlī's *ṣadaqāt*: Ibn Shabba, *Taʾrīkh*, pp. 219–29, quoted by Samhūdī several times; see his *Wafāʾ*, vol. 2, pp. 262 f., 270, 288, 392 f. See also H. Laoust, "Le rôle de ʿAlī dans la sira chiite," *Revue des études islamiques* 30 (1962): 12.

expressed by the Shī'ites against the Sunnites for generations; in A.H. 351/A.D. 962, for example, graffiti were inscribed on doors of mosques in Baghdad in which Shī'ites scribbled condemnations against those who denied Fāṭima what was due to her in Fadak.

Suyūṭī, on the other hand, expressed doubts about the whole matter and denied the authenticity of the Fāṭima tradition; in those days, he wrote, everybody had full knowledge of the fact that such properties and their revenue were set apart for one purpose only—the *jihād*. I. Goldziher showed that the dispute concerning Fadak found a very characteristic expression in what appears to be a discrepancy between *ḥadīth* formulas: the original version was *la nūrith ma taraknā ṣadaqatun*, "we [prophets] do not bequeath anything; what we hand down is *ṣadaqa*." In contrast, the Shī'ite formula was *la yūrath mā taraknā ṣadaqatan*, "that which we leave as *ṣadaqa* shall not be inherited." A tiny addition deprived this latter formula of its limiting sense, thus: *la yūrath mā taraknā fahuwa ṣadaqatun*, "whatever we bequeath shall not be inherited, as it is *ṣadaqa*." Apparently, this matter remains one of the unsolved problems in history; only *Allāhu a'lamu*, "God is the one who knows better." We cannot disregard the explicit traditions about various spoils, however, including the land taken by Muḥammad for himself; that was certainly in accordance with the age-old custom of Arab chieftains. It thus appears that some time after his death, and only as a reaction to the internal conflicts prompted by the house of 'Alī, did the first leaders of the Muslim community find it necessary to ascribe to the Prophet a total interdiction of the inheritance of his properties.<sup>19</sup>

<sup>19</sup> Ibn Qutayba, *Ma'ārif*, p. 195; Ibn Abī Ḥātim, *ʿIlal* (Cairo, 1343), vol. 3, p. 57; Ibn Ḥazm, *Risāla fī'l-Mufaḍḍala* (Beirut, 1389), p. 244; Karājili, *Kanz* (Mashhad, 1322), p. 57; on the graffiti, see Ibn Taghrī-Birdī, *Nujūm* (Cairo, 1929–56), vol. 3, p. 332. Suyūṭī, *La'ālī* (Cairo, 1352), vol. 2, p. 442; I. Goldziher, *Muhammed-anische Studien* (Halle, 1889), vol. 2, pp. 103 f.; see also C. H. Becker, "Studien zur Omajjadengeschichte,"

*Zeitschrift für Assyriologie* 15 (1900): 33; W. Ivanow, *Ismaili Tradition* (Oxford, 1942), p. 87, quotes from *Zahr al-ma'ānī*, p. 61, the tradition about al-Ma'mūn's proclamation: that whoever claims descent from Fāṭima will receive a part of Fadak and al-'Awālī. See also D. Sourdel, "Politique religieuse après al-Mutawakkil," *Studia Islamica* 13 (1960): 9; see the article "Fadak" by L. Vecchia Vaglieri in *El*<sup>2</sup>.

*Two Nations under God: The Deuteronomistic History of Solomon and the Dual Monarchies.* Vol. 1. *The Reign of Solomon and the Rise of Jeroboam.* Vol. 2. *The Reign of Jeroboam, the Fall of Israel, and the Reign of Josiah.* By GARY N. KNOPPERS. Harvard Semitic Museum Monographs, nos. 52 and 53. Atlanta: Scholars Press, 1993 and 1994. Vol. 1, pp. xv + 302; vol. 2, pp. xvii + 366. \$39.95 (each vol.).

This two-volume work on the stories in 1 Kings and 3 Reigns, takes up some of the issues related to the theories of Wellhausen (as revised by von Rad in the context of a "deuteronomistic history") and Alt (as revised by Herrmann within a comparable hypothetical context established by Noth) regarding 1 Kings. These two positions Knoppers presents as the two divergent images of the United Monarchy and its relationship with the independent kingdoms of Israel and Judah that "modern scholarship" presents. The author sets himself the task of distinguishing "between historical reality and the representation of that reality by various writers, early and modern, who invariably bring their own commitments, methods and imaginations to the study of the past" (vol. 1, p. 2). This task, as perceived by Knoppers, orients itself to a critical reflection on scholarship's choices between viewing 1 Kings as an "idealistic portrayal of the United Monarchy" or as an "accurate reflection of history." Knoppers grants both "elements of truth" at the outset of his study but does not tell us why.

As Knoppers opens his discussion (vol. 1, pp. 2–3) with the implicit assumption of the historical reality of such as a "Shechem assembly," "Rehoboam's kingdom," "decades of disillusionment," a "secession of ten tribes," "Judahite writer(s) living in the tenth or early ninth centuries BCE," and a "prophet Isaiah two centuries later"—all of which are gleaned from either the stories

of 1 Kings themselves or the hypotheses of traditional bible scholarship to explain these stories—one cannot feign surprise at Knoppers's conclusion that "YHWH works within (the Deuteronomistic) history to achieve his ends" (vol. 1, p. 222). Although he uses the word history over and again, and at times he uses the language of historians, I do not think we can fairly hold him to that, for his is a work of theology, biblical history, and salvation history, rather than one of critical scholarship. Within this more limited context, Knoppers's book offers an accessible and clear review of what theologians today are discussing concerning 1 Kings. The author implicitly confines himself to the evaluation of different literary representations of Solomon's world and leaves history and its very different problems to others. Although it has only limited use for historians among the readers of *JNES*, the ensuing discussion—particularly that dealing with the LXX variants—might be interesting to exegetes.

Knoppers enters into an important discussion of the many formal and thematic variants—including the only occasionally discussed variations of the Massoretic and LXX text traditions. He makes a good argument for viewing the LXX tradition as at least partially reflective of the process of composition. He likewise makes a strong review of the arguments against Noth's case for a single authorship of the deuteronomistic history and supports the general direction of Long and Van Seters far more than one might expect. His perception of what he refers to as the programmatic or ideological functions of his texts, however, is both dependent on his assumption of a biblical view of history underlying the history of redaction and also inevitably involves him in a circular argument promoting ideologically motivated multiple redactions dated to different biblically derived historical periods (pp. 36–45). Knoppers's critiques of this line of interpretation that has been fostered by the "Göttingen school" is largely limited to questions concerning the plausibility of their chronology. He unfortunately

\* Permission to reprint a book review in this section may be obtained only from the author.



remains within the discussion of the variable contradictions inherent in the domain assumption of a deuteronomistic history on the one hand and in the largely uncritical methodological premise that differences of ideology reflect ipso facto differences of redaction on the other. Knoppers's evenhanded treatment of these issues is admirable. Knoppers's treatment of Cross's double redaction variant of these (vol. 1, pp. 45–54), on the other hand, is disappointing, limited as it is to an expression of preference for Cross's support for "pre-exilic" elements within his redaction history. The basis for this preference for Cross's theory as being "by far the most convincing" (p. 51) is unclear. Knoppers's position is a modest ripple of Cross: a "pre-exilic history (Dtr<sup>1</sup>)," "an exilic supplement (Dtr<sup>2</sup>)," and "a number of scattered, mostly minor, additions."

Having somehow acquired (by this reassertion of his mentor's unsubstantiated opinions) a historical context for his texts, Knoppers then proceeds to interpret our biblical stories as if they were written within the world of the bible's story about Josiah. He aptly entitles this "The Agenda of This Work" (vol. 1, p. 55). This agenda is unsurprisingly little more than a paraphrase of the bible's story of Solomon, written from the perspective of his arbitrarily selected, but fictional, starting point.

It should be no surprise to the reader that the author is hardly dependent on the writings of literary critics such as Auld, Carroll, and Fokkelman (although Long does make the cut, and Auld is mentioned). Even less awareness of recent studies in the history of early Judaism or Palestine, such as those of Lemche and Ahlström, is demonstrated in this book. My criticism is not that some of my favorite authors have been left out of the bibliography, but rather that their absence in a book on this particular topic, that purports to distinguish "historical reality from the representation of that reality by various authors, early and modern," must be viewed as arbitrarily tendentious.

A final issue relating to historical "reality," which is perhaps insignificant: how does the dating of the deuteronomistic tradition's foundation to the reign of 1 Kings' Josiah give Knoppers warrant to speak of Solomon's reign as if it were historical?

The appearance of the second volume, which came to me after I had completed my review of vol. 1, immediately opens the issue of why this book (for in spite of two introductions and two covers, it has only a single theme) has been published in two volumes. Following the typical Harvard inflated pagination because they print only 250 to 300 words to a page, these volumes do not have the excuse of excessive size to justify their appearance as two books. I emphasize this issue for a number of reasons. The first and, I think, most important problem is that vol. 2 offers absolutely nothing theoretically new to vol. 1. This may not have been noticed if the two volumes had not been published separately. This two-volume work is also not justified by its size. Although 302 and 366 pages may seem to be a lot, the two combined volumes would barely amount to 400 pages of a de Gruyter or Brill book and would amount to even less if so many of the entries in the bibliographies of these two volumes did not overlap. Although I still find de Gruyter and Brill prices outrageous, I think Harvard and Scholars Press now have to be classified in the same price range: \$79.90 for 150,000 words is outrageous and particularly upsetting when they do not come close to corresponding to the quality of a de Gruyter or Brill publication.

Thus vol. 2 offers little that is new. It does offer, however, rich examples of poor method in our field. On p. 1, for example, Knoppers states: "I argue that the deuteronomist uses events in the early divided monarchy to frame the history of both Israel and Judah." Not only is this assertion not true (no such "argument" is made in this second volume), but if one were to think about this statement, one would be forced to ask *how* any writer of the late seventh century could have used "events" that had occurred three full centuries (some fifteen generations!) earlier. We have to remember that these texts were written before time travel. This is not careless writing on the part of Knoppers. It is careless thinking. Knoppers does not offer us the foggiest idea of what—if anything—the deuteronomist used to tell his stories about Jeroboam and Ahab.

Knoppers describes his approach in this second volume as "eclectic." But since he explains what he means by that, one becomes convinced

that it could be described as methodologically indifferent.

On p. 6 he states: "Most of the reign of Solomon is structured to address dominant concerns of the pre-exilic period," a statement made to argue against an exilic dating. Here the quality of Knoppers's thought is beyond hope. Given that the text he is trying to clarify is 1–2 Kings, one needs to ask how he knows anything about dominant concerns of an only hypothetical pre-exilic period.

Similarly, Knoppers describes the late seventh century as an age in which kingship had been subject to a "variety of searching critiques." Not only do we have Homer falling asleep again in this putative "argument," but the Irishman in me needs to suggest that the best "searching critiques of kingship" (one must always remember that victories of the past are always won by the historian) are best done within the context of a republic, whether centered in Boston or Dublin.

At this point, one must compare the deuteronomistic history with Isaiah, substantial parts of which are clearly late Persian or Hellenistic, railing against Assyria and its vassals: Israel and Judah. When all is said and done, we must admit that history gives us Thomas Mores and fiction more often than Jeremiahs (I purposely chose here one of the most storied men of English history).

Let us also look at Josiah's discovery of the Torah scroll in 2 Kings. Knoppers fails to address the increasingly interesting view that the historically first of the many Torah motifs seems to be in the legends of Ezra (cf. Garbini, Lemche).

A final criticism: increasingly, it seems that books being published in the 1990s by the third and fourth generations of the Albright school seem largely ignorant of current European scholarship and of historical studies in general. This is unfortunate, as American biblical scholarship from the 1970s to the end of the 1980s was arguably the most creative and productive in the world.

I wonder if the fault may lie with the publishers of American scholarship. Certainly, it must still be acknowledged that American work appearing in European publications such as *JSOT*, *SJOT*, *Biblica*, *VT*, *ZDPV*, *Levant*, and *BZAW*, among others, is far more exciting and more cur-

rent than the moribund and markedly (marketly?) narrow and chauvinistic SBL, ASOR, Harvard and Catholic Biblical Association journals and series. There is no longer any justification for our field not being an international one.

Europeans almost to a man—they have not given much room to women yet, who, I long ago was told by German friends, could not think theologically anyway—have adapted themselves to the dominance of international English. Today, few things of importance do not appear, at least in abstract form, in English within three years of publication. Even in the darkest reaches of the Black Forest, publications have English summaries. It is time that Americans reciprocate. There need not be and there is no excuse for a generation gap in American perception of what is happening outside of Harvard Square.

Finally, I would be grateful if Knoppers would write a third volume—it will earn him tenure—in which he either uses historical sources or in which he stops using the word "history."

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*Recent Excavations in Israel, a View to the West: Reports on Kabri, Nami, Miqne-Ekron, Dor, and Askelon.* Edited by SEYMOUR GITIN. Archaeological Institute of America, Colloquia and Conference Papers, no. 1. Dubuque, Iowa: Kendall/Hunt Publishing, 1995. Pp. xiii + 122 + 100 figs. + 4 pls. \$28.

This volume presents a series of reports on excavations at some of the largest and most important Bronze and Iron Age sites in Israel. Originally presented at a colloquium of the Archaeological Institute of America, the papers are usefully oriented around the theme of Eastern Mediterranean interconnections. They reflect the growing trend of seeing the Levant and the Aegean in larger geographic, sociopolitical, and cultural contexts. The papers are preliminary site reports with little thematic or theoretical content beyond addressing basic cultural-historical questions.

The Middle Bronze Age palace at Tel Kabri is discussed by Wolf-Dietrich Niemeier. He suggests that the painted plaster floors and wall frescoes are "Aegean" in derivation, containing both Minoan and Thera elements. *Contra* Bietak, he sees no Egyptian influence at Kabri or on the contemporary Aegean frescoes at Alalakh and Avaris.

Michal Artzy discusses Tel Nami, one of the few natural harbors on the coast of modern Israel. During Middle Bronze IIA, Nami had contacts with Egypt, Cyprus, and Syria. An Aegean connection is the legume *Lathyrus clymenum*, a variety of grass pea or chickling vetch, found at Akrotiri and unknown in the Levant. Finds from Late Bronze II include a sanctuary with metal working facility, vessels similar to conical cups frequent in Minoan cultic contexts, and a necropolis with varied burial practices and extensive metal finds. The site's wealth at the very end of the Late Bronze Age suggests a continued role as a port of entry for overseas goods.

Tel Mique-Ekron is represented by two contributions. Trude Dothan discusses the by now familiar Aegean connections of Iron I Philistine material culture. These include locally made Late Mycenaean IIIC:1b pottery, a large circular hearth in an apparently cultic building, incised bovine scapulae, iron knives with ivory pommels, and an incised ivory pyxis lid, among other items. These connections point first to Cyprus and then to the Aegean.

Seymour Gitin discusses Mique during the seventh century. As a Late Assyrian vassal the site appears to have specialized in the production of olive oil, indicated by the more than 100 pressing installations located in a belt around the perimeter. The tremendous production capacity was obviously related to Assyrian imperial policy. The presence of four horned altars in many oil installations also shows a close association of cult and production.

Ephraim Stern reviews the overall sequence at Tel Dor and the evidence of imported pottery. Late Mycenaean pottery, rare Cypriot White Painted I and Bichrome wares, familiar Phoenician Black on Red Ware, and Late Geometric, East Greek, and Attic imports all attest to the continued importance of Dor.

Barbara Johnson and Lawrence Stager discuss the "Gaza" wine jars at Late Roman and Byzantine Ashkelon, a type widely distributed in the Mediterranean and Europe. Tall and short variants are discerned, the former apparently a product of Gaza and the latter of Ashkelon. Extensive wine and pottery production sites have also been located near Ashkelon. These document further the well-known early Byzantine wine production associated with increased pilgrimage and demand for ecclesiastical Holy Land products.

Finally, William Dever presents an overview of trade-related issues in archaeology and comments on individual papers. He notes that research programs designed to investigate trade and economy are still the exception in Syro-Palestinian archaeology but that some of the projects discussed in the book make valuable efforts through the use of multidisciplinary techniques.

The volume is slim, about the size of an issue of *BASOR*. It is attractive and contributions are extensively illustrated and referenced. The original quality of the photographs is obviously high, but they have not been especially well reproduced in black and white. The Kabri, Nami, and Ashkelon reports suffer the lack of detailed site plans. Still, a great deal of time and money has been spent by the excavators on high-quality graphics. We assume that they will appear soon in final reports. The present volume gives a useful taste of the riches found in these extensively excavated sites.

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*An Early Neolithic Village in the Jordan Valley, Part II: The Fauna of Netiv Hagdud.* By EITAN TCHERNOV. American School of Prehistoric Research Bulletin 44. Cambridge: Peabody Museum of Archaeology and Ethnology, Harvard University, 1994. Pp. viii + 105 + 34 figs. + 55 tables. \$20 (paperback).

Once again, prehistorians have shown how much there is to be gained from careful and contextual study of faunal assemblages. Tchernov's

book on the faunal assemblage of the "Pre-Pottery Neolithic A" (PPNA) tell of Netiv Hagdud, in the lower Jordan Valley, demonstrates how faunal data contribute to understanding individual sites and to the "big questions," such as domestication and the emergence of village societies.

Framing the discussion in larger terms of the critical transition from the Late Natufian to the Early Neolithic, the volume systematically presents the faunal data from Netiv Hagdud. More than 500m<sup>2</sup> of the mound were excavated during the 1980s, comprising a cubic area of 146.1m<sup>3</sup>. An abundance of quantitative data on the mollusk, arthropod, and vertebrate finds are presented in the chapter on systematic paleontology. The discussion of site taphonomy and preservation rates is sophisticated, although a statement about recovery methods, especially sieving strategy, is missed here and in the brief methods chapter. Finally, the conclusions regarding animal exploitation and species preferences, community structure, paleoecology, and paleoenvironments make major contributions to our understanding of the Natufian and PPNA.

The volume is well prepared, extensively illustrated, attractive, and inexpensive. Only a detailed site plan and photographic overview are missed. Specialists will find ample data, and non-specialists will be richly rewarded by the thematic discussion and analyses. Finally, the book is a model of how quantitative data can be used to advance interpretation to levels rarely approached by historical archaeology. It is a welcome addition to the literature on Near Eastern prehistory.

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*An Index to the Late Bronze Age Aegean Pottery from Syria-Palestine.* By ALBERT LEONARD, JR. Jonsered: Paul Åströms Förlag, 1994. Studies in Mediterranean Archaeology, vol. 114. Pp. viii + 251 + 38 maps. \$84.20.

This publication, which begins with a quote from Arne Furumark and is dedicated to Vronwy

Hankey, follows in the footsteps of those two pioneers. Furumark's classification of Mycenaean vases and Vronwy Hankey's cataloguing of the Mycenaean vases found in the Eastern Mediterranean find their culmination in this long-awaited volume by Al Leonard. The genesis of the present book was a catalogue updating Hankey's earlier articles; as Leonard states, that catalogue originally formed a chapter in the author's 1976 Ph.D. dissertation for the University of Chicago. After growing successively larger over the years, a preliminary compendium was published privately in 1985 and circulated among interested scholars; the present volume represents the final version of that catalogue. All told, the present corpus has been more than twenty years in the compiling, and well worth the wait.

Chap. 1 is the introduction to the book, which explains in a clear and concise manner how to use the volume, as well as discussing the terminology and abbreviations used throughout. Chaps. 2-6 make up the catalogue and indexes themselves, listing and discussing the more than 2,300 Aegean vessels and figurines which have been found in Syria-Palestine to date.

Chap. 2 contains the primary catalogue, in which the entries are arranged according to vessel shape. Within each broad category (e.g., "Form 47. Lentoid Flask [FS 186]"), an initial illustration is followed by a brief written description and discussion and thence by catalogue entries listing the findspots of each example known from Syria-Palestine.

Chap. 3 consists of a separate treatment of the Mycenaean terracotta figurines found in Syria-Palestine. They are listed following Furumark's basic typology, later refined by French, which groups them according to their similarity to the "phi," "tau," and "psi" letters of the Greek alphabet. Within each group, the catalogue entries again list the findspots of each example known from Syria-Palestine.

Chap. 4 contains a secondary index arranged according to decorative motive (e.g., "FM 21. Cuttlefish/Octopus"). Here, too, an initial illustration is followed by a brief written description and discussion and thence by abbreviated references to the catalogue entries found previously in chaps. 2-3.



Chap. 5 treats separately those pieces for which a Minoan origin has been demonstrated or suggested. The format emulates that established in chap. 2, so that the entries are arranged according to vessel shape, with a brief description and discussion of each, albeit sans illustration, followed by a separate series of catalogue entries listing the findspots of each example known from Syria-Palestine.

Chap. 6 contains a site index, in which the sites in Syria-Palestine at which Aegean vessels and figurines have been found are listed in alphabetic order, with an abbreviated record reiterating the shapes present at that site and the catalogue numbers assigned to each. As Leonard notes, the catalogue and indexes in the various chapters can be used either individually or in concert with one or more of the others.

Following these chapters are three appendixes. Appendix A lists the specific chariot components represented in the chariot scenes on Mycenaean vases from Syria-Palestine, while Appendix B lists the incised signs and Appendix C the painted signs found on the Aegean pottery from Syria-Palestine.

Finally, following an extremely useful bibliography, some thirty-eight distribution maps graphically depict the findspots of the Aegean pottery in Syria-Palestine, arranged according to vessel shape. For example, map 11 depicts the distribution of Mycenaean "Globular Stirrup Jars" (FS 171 and 173) found in Syria-Palestine, while map 23 charts the findspots of Mycenaean "Conical and Ostrich Egg Rhyta" (FS 199 and 201) found in Syria-Palestine.

Within the chapters and individual entries themselves, Leonard is authoritative; yet he takes care to present alternate views and/or to explain the various problems involved. The numerous drawings of shapes and motifs accompanying the text and catalogue are extremely useful. Although one misses the presence of plates, ample references are given to those which may be found in Furumark and elsewhere. Overall, the text, catalogue, and illustrations clearly reflect Leonard's painstaking labor of more than two decades.

While there are a number of superficial typographical errors (which do not greatly affect the

scholarship) and while the bibliography contains several publications not actually cited in the text or footnotes of the book itself, on the whole, this volume is tremendously useful and can be recommended without reserve. It will be a welcome addition to the bookshelf of every archaeologist specializing in the Bronze Age of either the Aegean or the Eastern Mediterranean and will be of particular interest to those attempting to document the trade between those two regions. It will also join the works of Furumark, French, and Mountjoy at every ongoing archaeological excavation in Egypt and the Near East which touches upon Late Bronze Age levels, for it is an essential volume of description, discussion, and comparanda which will serve to augment the scarce resources available for identifying the often-fragmentary Aegean sherds recovered at such Eastern Mediterranean sites. As such, an added, perhaps unintentional, benefit stems from the fact that the volume has been printed as a hardback book with sewn binding; thus, its manufacture guarantees that the volume will stand up to years of well-thumbed use and will survive the rigors of being taken into the field season after season.

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*Tepe Abdul Hosein: A Neolithic Site in Western Iran Excavations 1978.* By JUDITH PULLAR ET AL. B.A.R. International Series 563. London: B.A.R., 1990. Pp. 259 + 77 figs. + 24 pls.

This book is an excellent example of what can be achieved with a modest budget and during a short, but careful, season. It is also an exemplary way of organizing and presenting excavated materials. In chap. 2, for example, the excavator leaves nothing to the reader's imagination. The archaeological units and levels are well defined, the techniques described, and the rationale for each operation explained. This gives the reader an excellent opportunity to ascertain the weakness and strength of the project and to appreciate the conditions under which the excavations were

carried out. Moreover, the report is generously supported by numerous meticulously prepared section drawings, plans, and charts. All the objects found on floors are triangulated, numbered, and described in a separate page facing the illustrations (e.g., pp. 42–43, fig. 13). The spatial distribution patterns on the surfaces and floors of artifacts and ecofacts are painstakingly provided with facing charts, describing each item. The same is done for the burials and their contents.

The book is a report on the excavations at Tappeh Abdul Hosein, a small early Neolithic site, ca. 6 m high and 50 m in diameter. At an elevation of 1860 m, the mound is located in the valley of Ab-e Qeshlaq, halfway between the modern towns of Khurramabad and Malayer, in the central Zagros mountains. The excavation of the mound was intended to test a number of hypotheses concerning the crucial period of transition from hunting-gathering to early domestication of plants and animals and the environmental conditions during the early Neolithic period (p. 8).

Temporary camps or campsites of the late Pleistocene hunting-gathering population of the Zagros mountains are represented by such sites as Karim Shahir, Zawi Chemi, Shanidar B-1, Mo<sup>3</sup>lafaat and Gerd Chai, Ganj Darreh E, and Asiab. Initial village life, though not necessarily permanent, is represented in the Zagros by sites such as Tappeh Guran and Tappeh Sarab. A number of <sup>14</sup>C dates put the earliest occupation of Tappeh Abdul Hosein in the early seventh millennium B.C., i.e., the end of Ganj Darreh, and before the beginning of Tappeh Guran and Tappeh Sarab.

The deposits are divided into aceramic and ceramic phases, each with a number of associated levels. The earliest occupation seems to be a seasonal campsite with no solid architecture. This phase is characterized by having a number of cooking and storing installations (p. 9). Somewhat later, traces of rectangular, mud-brick architecture with mud-plastered floors, some painted red, occur (p. 9). Cultivated wheat and barley were present from the beginning, aceramic phase (p. 5). But except for a number of surfaces and floors (some mud-plastered), no traces of solid architecture were found in this phase (p. 6). There

seems to be a break in the occupational levels of the aceramic and ceramic phases, separated by "a hard crust of dark brown or black clay mixed with small stones" (p. 6). The 1 m of occupational debris above this deposit was too disturbed to yield any traces of solid architecture, but traces of walls are noted in sections (p. 10). It seems that the site as a village was deserted by the mid-seventh millennium and was consequently covered with mixture of colluvium and alluvium.

The pottery (pp. 157–61) is primarily coarse, plain, and handmade; the surface is usually buff. Insofar as the shapes can be reconstructed, they are simple with thick, flat bases. Mineral and vegetal tempering agents were used either separately or in combination, with the latter being most frequent. Some sherds are burnished, but since most of the sherds have an eroded surface or are covered with incrustation, burnishing may have been more common. The painted pottery is scanty, and one piece is identified as "J" ware, presumably contemporary with the Halaf period in northern Mesopotamia. Only a handful of painted pottery was found (23 lip-sherds and 46 body-sherds, little over 0.3 percent of the total). These sherds of mixed painted pottery, dating to the sixth and fifth millennia, were discovered in the upper disturbed levels (p. 10). Almost all of the painted examples exhibit characteristics of early Neolithic pottery. The presence of later ceramic, perhaps as late as Late Middle Susiana (fig. 62:11), indicates that the site must have been used as a campsite after it was abandoned as a village.

Clay figurines, spindle whorls, and tokens were found in most levels (pp. 169–72). Also bone tools, stone bowl fragments, pounders, pestles, and grinders, all common components of early Neolithic sites occur (p. 10). Stone tools were found in all levels and resembled the lithic technology at Ganj Darreh and Asiab (pp. 213–16). Sixteen pieces of obsidian were found from all levels, except in the campsite phase (pp. 12, 113). Eleven pieces of the Nemrut Daghdag obsidian seem to be the earliest occurrence of this commodity in the Zagros mountains (pp. 6, 12, 113). The lack of obsidian at Ganj Darreh, its presence at Abdul Hosein, and its abundance at Guran and Sarab also draw attention to the transitory nature

of the site between Ganj Darreh and Sarab and Guran.

Although the bones were not available for analysis, worked bones were used to identify the presence at the site of some domesticates such as sheep/goat, deer, boar, and wolf/leopard (pp. 10, 189–91). It is unfortunate that the faunal material has not been analyzed due to the political turmoil in Iran (p. 6). This hampers any conclusions on the state of animal husbandry at the site, crucial to the nature of the transition period.

Two-row hulled barley (*Hordeum distichon*), emmer (*Triticum dicoccum*), and lentils (*Lens culinare*) were identified. Pistachio nuts and almond stones were also present (pp. 217–20). Hubbard (pp. 217–22) argues that agriculture was brought to the site in an already evolved form. The predominance of the barley and emmer and the absence of einkorn at Abdul Hosein is indeed peculiar, as Hubbard indicates. This situation suggests to him that plant domestication is not at its initial stage here; rather, it reflects a conscious choice on the part of the inhabitants of the site (pp. 219–20).

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*Gilgamesh, o la angustia por la muerte (poema babilonio)*. Translated by JORGE SILVA CASTILLO. Mexico City: El Colegio de México, 1994. Pp. 226.

This translation is of primary importance for Spanish speakers: it is the first one made directly from the Akkadian text.<sup>1</sup> Other translators,<sup>2</sup> with little or no knowledge of the original writing

<sup>1</sup> I thank Jerrold S. Cooper and Philip Jones for reading earlier drafts of this review and for sharing their comments with me. The responsibility for the ideas expressed, however, rests solely with me.

While I was finishing this review, a second improved edition of Silva's work appeared (see my review in a forthcoming issue of *JAOS*). Such promptness proves the already mentioned importance of this book.

<sup>2</sup> Agustí Bartra (Mexico City, 1963 and Barcelona, 1972), Hylmar Blixen (Montevideo, 1980), Federico Lara Peinado (Madrid, 1980, 1983, and 1988). Nicolás Darfál translated into Spanish the French version of

and language, limited themselves to translating from previous French, English, or German translations. Only the Hittite version of the poem was put directly into Spanish (A. Bernabé, *Textos Literarios Hetitas* [Madrid, 1979 and 1987], pp. 93–115).

The translator has aimed his work at the layman, at a reader with an interest mainly either in ancient poetry, or in Mesopotamian culture, or in both. In order to offer a continuous and coherent text, Silva Castillo resorts to the Old Babylonian version to complete the Standard Version in some cases. Moreover, to save the reader from the philological *selva selvaggia* of different kinds of brackets, but giving, at the same time, an accurate idea of the state of the text, he uses italics for the restitution of broken words and signs, brackets for more important and commonly admitted restitutions, and a different font for the Old Babylonian version. I. M. Diakonoff, in his Russian translation (*Èpos o Gilgameše (O vsë vidavšem)*, Literaturnye Pamjatniki [Moscow, 1961]), followed the same procedure. For similar reasons, Silva divides the text into thematic chapters, independent of the traditional division into tablets, although he makes the conventional numbering into lines, columns, and tablets clear enough.

Silva's introduction puts stress on the meaning of Gilgameš as an epic figure replete with human and psychological nuances justifying the subtitle of this book: "la angustia de la muerte" (the anguish of death). In the light of W. L. Moran's article (*JCS* 32 [1980]: 208–10) regarding Rilke's interest in Gilgameš, one may perhaps say of Gilgameš's heroic struggle between life and death that "es erhält sich der Held, selbst der Untergang war ihm / nur ein Vorwand, zu sein: seine letzte Geburt" (*Duineser Elegien* I 41–42).

The footnotes restrict themselves to illuminating some obscure expressions. Some pieces of the Hittite version are quoted in these notes (in such cases, Silva follows J. Bottéro's indirect

Florence Malbran-Labat (Estella, 1982). Agustí Bartra, who was a Catalan poet exiled in Mexico after the Spanish Civil War, is the only one, before Silva, who attempted to render the epic in truly literary Spanish.

translation). The philological and historical notes are given at the end of the book (pp. 195–221). Several illustrations, a map (p. 39), a chronological table (p. 36), and a thematic diagram (p. 37), help the reader to understand the milieu of the epic. The volume ends with a short bibliography.

The translator's main goal is literary. The cuneiform "lines" are understood as real verses, divided in two *hemistichia* (the second one in another indented line). Silva's Spanish is not only highly literary, but also full of rhythm and of austere and deep cadence. There are, however, some points where one may disagree with his translation. For instance (choosing just one case), VIII i 33–34 are translated "¡Que te lloren las prostitutas . . . [que] / . . . te ungieron ellas con buen bálsamo," but "las prostitutas" does not seem to be right (it should be "la prostituta"); *tappašiš* does not need to be emended either (see O. R. Gurney, *JCS* 8 [1954]: 94b; G. Pettinato, *La Saga di Gilgamesh* [Milan, 1991], p. 190). But it could be argued also that the Sultan Tepe version abounds in mistakes (see Diakonoff, *BiOr* 18 [1961]: 64 b).

The introduction is not completely free of some small mistakes: correct to Enkidú (p. 7), É-KUR (p. 17), LUGAL (p. 18), and Tigris (map on p. 39). More important, on pp. 18–19, although it may be a case of ambiguous transliteration,<sup>3</sup> in the *Sumerian King List* [Jacobsen, AS, no. 11, pp. 89–91], Gilgameš's (Bilgameš's) father was not a *lillu* (lil), but a *lil<sub>2</sub>* (either *lilū*/*lillū*, a kind of demon [AHw., p. 553], or *zāqiqu*/*ziqīqu*, "phantom, ghost, nothingness").<sup>4</sup> On

p. 197, that "*lillu*" is translated as "sacerdote" (priest). He reads the determinative DINGIR before the name *Gilgameš* as AN (p. 47). Further corrections, on p. 218, are that *mitum* means "dead" and "husband, man" is *mutu* (different from *mūtu*, "death").

In the transcriptions, the sign *š* appears frequently as *ś*, and the circumflex accent and the macron seem to be confused in several cases. There are typographical errors, mostly in the final notes. I suggest the following corrections: *imuru* (p. 195, n. 1), *idū* (p. 195, n. 2), *mithāriš* (p. 196, n. 3), *šūtur eli šarri* (p. 197, n. 8), *šūpū* and *mudū* (p. 198, n. 14), *kašāru* (p. 199, n. 18), *hābilu* (p. 199, n. 20); on *hābilu-amēlu*, see Edzard, *Or.*, n.s., 54 [1985]: 49–50), *napissu* (p. 200, n. 28), *dādušu* and *ihpupū* or *ihbubū* (p. 201, n. 29; on *ihpupū*, see Foster, in Marks & Good, eds., *Love & Death . . . Essays . . . Pope* [Guilford, 1987], p. 25a), *šahātu* (p. 201, n. 31; see Edzard, *Or.*, n.s., 54 [1985]: 51), *awiliš iwe* (p. 203, n. 39), *pūg niši* (p. 204, n. 41), *padattam* (p. 204, n. 43), *izizzaššu* (p. 209, n. 69), *pisquniš* (p. 209, n. 72), *iššūr šaršari* (see von Weiher, *BaM* 11 [1980]: 102) and *qištu* (p. 210, n. 79), *dallālu* (p. 211, n. 88), *ušeššebka šubat nēhta šubat šumēli* (VII iii 43, p. 212, n. 97), *kummusū* (p. 213, n. 101), *ṭardu* (p. 214, n. 104), *X ana šāšuma izzakkara ana Y* and *X pāšu ipušamma iqabbi izzakkara ana Y* (p. 216, n. 118 and p. 220, n. 147), *mušebirū* (p. 217, n. 120), *amēlūtum ša kīma qan api hašib šumšu* (X vi 10': Sm 1681, p. 217, n. 127), *kulilū* (p. 217, n. 129), and *mitum* (p. 218, n. 130). In the footnotes, true transliterations (e.g., *bēru* on p. 72) are mixed with adaptations (such as *lushanu* on p. 68). In subsequent editions, some corrections will have to be done in this part also: *Shámhat* (p. 67), *kamāsu* (p. 69), É-KUR (p. 113), *ešēnši zēr napšāti kalāma* (XI 83, p. 164), *rābišu* (p. 187). Also, some transcriptions, which are currently not accepted by most scholars, need to be corrected throughout the entire book (for instance, *apsu* instead of *apsū*).

George Steiner (*After Babel*, 2d ed. [Oxford, 1992], pp. 265 ff.) reminds us of the distinction formalized by Schleiermacher, which goes back to Quintilian, between *Übersetzer* and *Dolmetscher*, a distinction that can also be upheld in

<sup>3</sup> The same ambiguous transliteration can be found in R. J. Tournay and A. Shaffer, *L'épopée de Gilgamesh*, LAPO 15 (Paris, 1994), p. 7.

<sup>4</sup> See Th. Jacobsen, AS no. 11, pp. 90–91, n. 131; and A. L. Oppenheim, *Or.*, n.s., 16 (1947): 233, n. 3. Aelian (*De natura animalium* 12.21) says that Gilgameš's father was ἀφανής, which can be translated as "obscure (man), secret, invisible, of no renown"; see Jacobsen, AS no. 11, p. 89, n. 128; Cl. Wilcke, *DUMU-E<sub>2</sub>-DUB-BA: Studies in Honor of Á. W. Sjoberg* (Philadelphia, 1989), pp. 562–63. Thus G. Pettinato (*I Sumeri* [Milan, 1991], p. 137; and *La saga di Gilgamesh* [Milan, 1992], p. 74) translates "suo padre [Gilgameš's] è uno sconosciuto." The Sumerian text reads: <sup>d</sup>giš.bil.ga.meš.ab.ba.ni lil<sub>2</sub>.la<sub>2</sub> en kul.ab.ba.ke<sub>4</sub> mu 126 i<sub>3</sub>.ag "Bilgameš, whose father was a *lil<sub>2</sub>*, a high priest of Kulaba, reigned 126 years."



Spanish (*traductor*, from Lat. *traductor*, versus *trujamán*, *trujimán*, *truchimán*, or *dragomán*, from Ar. *turğumān*—cf. *Targum*). In order to render the singularity of the original speech, the act of *dolmetschen* upon an ancient text would require a Hölderlin, who translated Pindar and Sophocles into a Greek-German. Frequently, the philological spirit leads the Assyriologist to *dolmetschen* instead of *übersetzen*, for the sake of being faithful to the text, unfortunately, however, without the poetical skills of a Hölderlin. The layman—if such a person exists—the reader interested in poetry, in epics, or in the ancient Near East, needs an *Übersetzer* who offers a new reading, who creates again a text in a new language. Silva Castillo fulfills that role perfectly with his *Gilgamesh*.

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*The Small Collections from Fort Shalmaneser.*

By GEORGINA HERRMANN. Ivories from Nimrud (1949–1963), fasc. 5. London: The British School of Archaeology in Iraq, 1992. Pp. xiv + 146 + 6 figs. + 104 pls.

This volume marks the fifth in the Ivories from Nimrud series: the previous publications having presented materials found in a single room of Fort Shalmaneser, the present publication consisting of more than 500 pieces unevenly distributed through approximately 40 different rooms, including what appears to be the principal residence and reception suite of the building; the offices of the *rab ekalli*, or palace manager; and a variety of rooms around the southeast, northeast, and northwest courtyards. By the author's account (p. 5), most of these rooms were actually in use until the last years of the Neo-Assyrian period, so that the fragments represent pieces of furniture equally in use, rather than works stored and stockpiled, as in the case of some of the earlier fascicles (e.g., M. Mallowan and G. Herrmann, *Furniture from SW 7, Fort Shalmaneser*, Ivories from Nimrud, fasc. 3 [London, 1974]).

The regular and systematic publication of this most important assemblage is to be celebrated,

along with the high quality of photographs. The policy of illustrating every single piece in the catalogue—on the grounds that one can never tell when the most menial of fragments may provide essential information—and the additional practice of publishing both fronts and undecorated backs of pieces so that working techniques can eventually be studied is equally to be celebrated. A section on terminology provides welcome clarifications with respect to previous fascicles (pp. 2–4). The term “set,” for example, is defined as consisting of plaques similar in style, subject, and/or technique, probably forming part of a single object. Such sets are assumed to have been made in a single “workshop,” which could have consisted of a number of craftsmen. These sets are subsequently gathered into larger “style-groups,” although no attempt is made to distinguish when these “style-groups” represent a single workshop or a series of workshops. The implication is that they do, however, represent a single locale of manufacture. The largest category, “tradition,” is then reserved for an assemblage of several style-groups and centers of production within a single “region.”

Equally welcome is the author's decision to return to the accepted designations “North Syrian” and “Phoenician” for the two major traditions (as contrasted with the terminology employed in *Ivories from SW 37, Fort Shalmaneser*, Ivories from Nimrud, fasc. 4 [London, 1986]). I remain, however, more persuaded than she that what is called the “Intermediate Tradition,” can be located, and should be designated “South Syrian” (discussion, p. 3, n. 5), on the basis of geographical distribution and historical evidence related to the Samaria/Damascus orbit (see I. Winter, “Is There a South Syrian School of Ivory Carving . . . ?,” *Iraq* 43 [1981]: 101–30).

Where, by contrast, I am less willing to be specific and Herrmann more, is in locating what she calls the “Flame and Frond” school of the North Syrian tradition (p. 3) in the Aramaean state of Bît Bahiani, with its center at Tell Halaf. I am certainly most comfortable with the argument that within the larger “regions” many local centers of production were active (as suggested in *Iraq* 38 [1976]: 1–22 and *Metropolitan Museum Journal* 11 [1977]: 25–52). In this particular case, however, we differ considerably in

how best to interpret the available evidence. In Herrmann's view ("The Nimrud Ivories. 1, The Flame and Frond School," *Iraq* 51 [1989]: 85–109), the comparable stylistic details apparent on the Tell Halaf reliefs and on the ivories can be seen as determining factors in location of the school, based on a principle of unity between major and minor arts, with the major arts serving as models for smaller artifactual production. In the volume under review, Herrmann refers first (p. 3) to the "suggestion" for the school's location; by her conclusions, however (p. 42), the statement is declarative: "This style . . . can be considered to be the state art or visual language of Bīt Bahiani."

To my mind, just on sheer logic, the rather scruffily executed reliefs contrast mightily with one of the most elegant and refined of the ivory groups, and it is less than likely that such a minor capital as Tell Halaf should be producing such a major group of ivory carvings, particularly when there are other compelling alternatives at hand, viz., the highly developed neighboring center of Carchemish. In any case, I do not believe that the scholarly language of a hypothesis should be presented in terms of an assertion; and alternative arguments, particularly those that have been published, should not be obscured (see, in particular, Winter, "North Syrian Ivories and Tell Halaf Reliefs: The Impact of Luxury Goods upon 'Major' Arts," in A. Leonard, Jr. and B. B. Williams, eds., *Essays in Ancient Civilization Presented to Helene J. Kantor* [Chicago, 1989], pp. 321–32). I myself remain persuaded that this is in fact a rare case in which the reliefs are the "back-formation," stimulated in a provincial center by the "high art" of an imported and important artistic medium; but the main point is that differences in scholarly interpretation need to be aired and competing hypotheses interrogated in open evaluation of evidence and argument, so that reading audiences can weigh for themselves the merits of differing positions.

The determination of "style-groups" is where the author has invested the major portion of her scholarly analysis. These groups cut across individual objects, as members of the same group may appear in a number of different rooms. It will be the task of a long-range, secondary study

of catalogued materials, once the entire assemblage of Nimrud ivories is published, to evaluate the coherence and validity of such groups. Herrmann helpfully provides numbers of each of the pieces in her groups; for future study, one will wish to lay illustrations of each group out side-by-side. For the present, the reader seeking information can, as I did, examine suggested group members in sequence. One of the most interesting exercises in this regard is to gather the three groups she has designated as belonging to her "Intermediate Tradition." The first, the so-called "Wig and Wing" group, is distributed over at least 4 rooms and extends to such themes as the female sphinx, the "Woman at the Window," the male winged genius, and two griffins opposite a tree (Nos. 95, 110, 207, 219, 226, 399–400, 402, 406–7, 409–10, 438–41, 459–70; see pp. 30–32); the second, the "Crown and Scale" group, consists of some 20 pieces, including a female head (from a winged sphinx?), winged male genii, a lion head, griffin-slayers, ram-sphinxes, and a male "priest" with uraeus-crown (Nos. 99, 115–18, 206, 240–43, 328–30, 393–98, 401; see pp. 32–33); the third, the "Collar and Crown" group, includes men opposite a tree, couchant sphinxes, ram-sphinxes, and goring bulls (Nos. 119–21, 122–26, p. 33). In most cases, these groups also extend to pieces found in Room SW 37 of the Fort, and have therefore been discussed, in the previous volume of the series, *Ivories from SW 37*, *Ivories from Nimrud*, fasc. 4.

In general, one or two characteristic variables are identified that determine the clusters. It is an extremely important and difficult undertaking to try to establish such groups across iconographic categories. Visual analysts will find it hard to accept all of the author's judgments, however—for example: separating No. 399 (two-winged male genius of the "Wig and Wing" group) from Nos. 393–99 (same motif, "Crown and Scale" group) when one of the principal criteria is headgear and the head of No. 399 is missing, while wings are identical in every way except perhaps depth of carving (perhaps, then, this was a typographical error?); and separating Nos. 402 and 401, male figures, when, although one is in the round and the other in relief, they both wear the same type of wig and are united by the identical feature of beading around the edge of

the skirt, characteristic as well of Nos. 328 and 399 (also said to be from two different "style-groups"). Still, the attempt at such groupings is noble. To be tested, future scholars will need to do separate studies that delve more deeply into criteria for establishing boundaries between shared characteristics and variations.

With such future studies in mind, I would point to some vexing problems suggested by some of the wonderful pieces in this catalogue. (1) The "style-group" identified by Herrmann as the "Flame and Frond" group of the North Syrian tradition, first discussed in SW 37, joins works on the basis of a particular treatment of the leafy boughs of volute trees and a characteristic marking on the haunches of animals. On these grounds, Nos. 454 and 455 of the present volume, showing a gazelle with head turned back to graze, accompanied by various flora—volute tree, papyrus cluster, windy tendril-plant—are included in the group, although the motif has parallels in Phoenician production, as do the more egyptianizing papyrus-clusters. When one then extends the class to include also Nos. 456 and 457—of identical size, fitting tenons, and accompanying flora, but showing a seated lion with clearly egyptianizing bib and (solar?) disk on his head—one steps over the boundary of what is generally a criterion for Phoenician vs. North Syrian distinctions: the strong presence of egyptianizing elements. Does this mean one has to reclassify all four pieces (Nos. 454–57) as "Intermediate/South Syria"? Or must we now reconsider the distinguishing features of the North Syrian tradition in general?

(2) The long panel of a continuous contest scene, Nos. 308 and 309 (pls. 62–65), begs for further study. Now in two pieces, it originally had to have been over a meter in length, and the author rightfully points to the decorated vertical support that runs between the legs of Assurbanipal's couch in his famous "Garden Scene" relief (see p. 102). The way in which every animal is connected to the one before or behind is ingenious and marked by violent energy, as when the horn with which a bull pierces a lion's forequarters is shown both entering and protruding from his shoulder (see pl. 64, center), or the way in which the claws of a lion who has felled a bull seem to dig right into his flesh (pl. 65, bot-

tom). This piece has been attributed to the North Syrian tradition (p. 29). The technical detail of a manner of drilling out the pupil of the eye, as well as characteristic serrations at the base of the bulls' horns allow the panel to be compared with works from SW 7 and SW 37, including more pacific files of browsing bulls and a chariot-hunt scene. While I do not share the author's assessment that this group is marked by an absence of musculature when compared with her "Flame and Frond" group, I do share her invitation to further study—particularly with respect to some of the more curious ivory equestrian blinkers published in an earlier fascicle (J. J. Orchard, *Equestrian Bridle Harness Ornaments*, Ivories from Nimrud, fasc. 1, 2 [London, 1967]), where animal contests around the blinker edges similarly show animals similarly linked in mortal combat.

(3) The stunning à-jour female sphinx plaque, No. 95, her associated sisters in the "Wig and Wing" group (Nos. 219, 226, and 406), and various other female sphinxes (such as No. 205, head in the round of a female sphinx, attributed to the North Syrian tradition, p. 83) make clear that, however useful criteria of headgear and body-markings may be for establishing groupings, it is now time to investigate what to date we have all avoided: the rendering of facial features. The sample is largest for women's heads, so it would be a good place to start. Whether one works first with the subset of all "Women at the Window" or of the female sphinxes, it is necessary to begin to examine chin, cheek, brow, etc., since in such details will lie more reliable signs of individual hands and/or workshops (while more consciously applied elements can be standardized and copied by many hands).

(4) It would be interesting to follow up on the interesting observation (p. xi) that virtually all of the 111 Assyrian-style fragments published in this catalogue come from the ceremonial areas of the Fort and to see if any of the fragments could be reconstructed into actual pieces of furniture (see discussion, pp. 24–28). Most of the incised Assyrian ivories with narrative scenes are ninth century in style (p. 27); if they were still in use into the seventh century, this would provide an important glimpse into Assyrian taste and display, the clearly imported



couch depicted on Assurbanipal's garden scene relief notwithstanding.

These problems and many others generated by the Nimrud ivory assemblage are reminders of the rich information to be obtained from what was clearly a major art form in the first half of the first millennium B.C. We are all in the debt of Georgina Herrmann and the late Barbara Parker Mallowan, editor of the Ivories from Nimrud series at the time of publication, for the exemplary way in which this assemblage is being published. The remaining fascicles that will complete publication of the ivories from Fort Shalmaneser are eagerly awaited.

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*Metallgefäße im Iraq I (von den Anfängen bis zur Akkad-Zeit)*. Prähistorische Bronzefunde Abteilung II, 14. Band. By MICHAEL MÜLLER-KARPE, with contributions by EMMERICH PÁSZTHORY and ERNST PERNICKA. Stuttgart: Franz Steiner Verlag, 1993. Pp. xi + 352 + 199 pls. DM 284.

This volume covers every metal vessel from a dated context from the Late Uruk period through the Akkadian period excavated in Iraq before 1982. Other vessels from undated contexts or uncertain provenience are included if, on the basis of their form, they appear to have come from this area and time range. As the author notes, it is the first systematic study of metal vessels from this region; unlike pottery, which is almost invariably studied for its typological characteristics, metal vessels until now have been treated separately mainly in terms of what they might reveal about technology, while efforts at formation of typologies have been brief, usually included within studies primarily concerned with internal cemetery chronology (i.e., H. Nissen, *Zur Datierung des Königsfriedhofes von Ur* [Bonn, 1966]; K. Karstens, *Typologische Untersuchungen an Gefäßen aus altakkadischen Gräbern des Königsfriedhofes in Ur* [Munich, 1987]). The introduction includes brief summaries of the excavations from which the vessels derived, with indications of the reliability of the excavators'

original dating assignments and explanations of any redating studies done. General descriptions of the materials involved (copper, bronze, gold, silver, electrum, and lead) and of the difficulties inherent in working with corroded and warped vessels are also given.

Most of the volume is devoted to the typology and catalogue. The vessels are divided into 51 forms, defined by morphology, or by physical characteristics of body, base and rim shape and any attachments, rather than by functional analysis, which is always a more tenuous enterprise. The chapter on each form includes a detailed description of its overall shape, decoration, method of manufacture, and variants (up to eleven variants at the most, the majority of forms having only three or four). This descriptive section is followed by a list of all known examples, complete with a brief description of each, along with its provenience, dimensions, any traces of contents, other associated objects, dating, place of prior publication, and current location and condition. The chapter on each form also includes a discussion of the form's possible function, with reference to its most typical findspot (if any), contemporary representations in other media, and any other frequently associated forms. This arrangement, taking essentially no account of the vessels' use during the development of the typology, but including it later, satisfies both the need for scientific objectivity and the natural desire for context. Especially welcome is the discussion of the possible ergonomic problems attendant on the use of Form 8, the peculiar "shell-like" shallow vessels which have been called anything from lamps to libation bowls, and the identification of "grave sets" composed of a sieve, an oval vessel, and a hemispherical bowl (Forms 43, 17, and 9), occasionally accompanied by a cylindrical beaker (Form 22) and/or one of the larger vessels. There are also remarks on related forms, in both metal and ceramic, and on each form's geographical and chronological range.

Other chapters deal with the inscriptions; the hoards and grave groups from the Diyala, Kish, Tello, Uqair, and Ur; chemical analyses done on a selection of the vessels; and a concluding chapter on manufacturing techniques, materials, decoration and attachments, and possible regional



workshops and artisans. Well-organized and readable concordances of museum number to publication number and findspot to publication number complete the prose section; the individual illustrations also include the relevant information on the findspot, for cross-reference. A number of tables summarize the vessels' findspots, materials, chemical analyses, and decorative elements.

Included are 142 plates of exquisite drawings showing the forms and their variants, mostly reconstructions of the sometimes very badly distorted and corroded objects (18 plates of photographs allow a comparison of the material from which the author was obliged to work). A further 26 plates are devoted mainly to the Ur cemetery material and other groups from hoards or burials, including sketches of the graves and the locations of objects within them. Anyone working with grave groups of similar date will appreciate these plates in particular but may wish for even more of the latter type of arrangement. The drawings of the various vessels are beautiful, but the sorting strictly by form has divorced them from their contexts, and the strict organization makes it slightly frustrating to work out sets or combinations of forms which were found together. The sets are addressed in the chapter on groups and in the lists at the back of the volume, where assemblages of vessels from each grave or other single findspot are given, but it would have been useful to have more of these groups collected on the same page. Two plates supply an overview of contemporary representations in other media (stone reliefs, seals, inlay) of what are arguably metal vessels in use. And the final plates consist of a chronological chart of the 51 forms—the time range of each and any internal variations of morphology or size. The only thing missing in the chart, and the book in general, is some indication of the relative frequency of the types, both within the range of time in which they appeared and in relation to each other.

The contribution made by this volume is so enormous that any criticism must seem ungrateful. A minor point can be raised about the geographical range for the volume—Iraq only, rather than all of Mesopotamia. This restriction comes from the way the series is set up; the already published volumes on bronzes from other countries also have had the same problem. Although the contemporary material from Susa, for in-

stance, has been adequately treated elsewhere (F. Tallon, *Métallurgie susienne I* [Paris, 1987]), it would have been useful to have had even sketches of those items here for comparison, given Susa's close relationship with Iraq during precisely the time range covered. Also, it is unusual in a work otherwise so well organized to find that some references in the footnotes are not listed in the bibliography. This is especially the case for the introductory chapter (none of the references in n. 61 of the introduction, for instance, appears in the bibliographical list), and there are scattered gaps in the documentation of notes elsewhere.

On a more substantive note, in the archaeological sequence for part of the time period covered by this book there are several problems which are currently under review. These problems are addressed in the introduction and in a table (fig. 1), which summarizes various scholars' disparate systems of periodization, but this book does little towards resolving the difficulties. One can argue that the intent of this volume was to create a typology which will then be fitted into the sequence once that sequence has been argued out and finally established, but it could also be said that typology formation should aid in the definition of sequences. The main problems during the time range covered lie in the internal divisions of the Early Dynastic period and with the end of the Early Dynastic and the transition into the Akkadian period. With regard to the first of these problems, it has become increasingly clear from recent excavations at Nippur and elsewhere that the internal divisions of the Early Dynastic period, as based upon the stratigraphic sequence in the Diyala, cannot always be applied to the rest of Mesopotamia, neither the northern nor southern region. The trend is now towards the shrinking or even dropping of the "ED II" label when describing archaeological levels in the south, perhaps maintaining it as an art-historical division only (see Porada, Hansen et al. in Ehrich, ed., *Chronologies in Old World Archaeology*, 2d ed. [Chicago, 1993], p. 107). The problem of the variable applicability of the Diyala sequence to other sites is noted in the introduction to this volume, but that sequence was still used in the absence of anything better at the time most of the work was done. The result is especially clear in the chronologi-

cal chart (pls. 172–81), where there are very few types assignable to the ED II, so that entire pages of the chart show a somewhat misleading gap across the center.

At the end of the Early Dynastic period, the overlap of Sargon of Akkad with the last rulers of Lagash provides difficulties for the dating of objects and levels at the end of the Early Dynastic period and the beginning of the Akkadian period. Revision of the sequence for this transitional period is also underway, and there should eventually be an abandonment of the application of the term "ED IIb" to levels anywhere but at Tell al-Hiba and in its sphere of influence under those last kings of Lagash (see Porada, Hansen et al., in Ehrich, ed., *Chronologies*, pp. 112–13). Much of the northern alluvial plain had already come under the rule of Sargon at that time, and objects from that area should probably be called early Akkadian. The collapsing of the ED-early Akkadian transition means the distinction between an object called "ED IIb" and one called "early Akkadian" is essentially more of a regional difference than a chronological one. Users should be aware that in this volume the "ED IIb" label is still used as a chronological distinction and may have been applied to a number of objects which it may be argued were produced during the reign of Sargon or even of his successors. This problem with assigning chronological labels within this transitional phase adds to the admitted difficulty in defining a firmly dated typology for metal vessels (as opposed to pottery, given the tendency for the more valuable and durable metal vessels to be retained for use long after their manufacture).

For some of the specific forms of the typology, a complement to the chronological problem arises. While some of the form variants are distinguished from each other by differences in scale or in minor morphological or decorative features and are essentially contemporary, a number of other variants are apparently chronologically distinct, and this distinction is perhaps not given quite the weight it could be. It might have been preferable had the variants and subvariants been labeled in the order of their appearance. They are numbered instead according to morphological differences which are logical if one looks at the vessels as shapes only and is concerned strictly with morphology, i.e., moving from

smaller to larger diameter, shallower to deeper sides, rounded to flattened base, or other traditional arrangements. But, for instance, within "Form 2 III," subvariant *a* is found in ED-Akkadian contexts, *b* belongs to "ED IIb," while *c* is ED I. This inverse labeling obscures the fact that the differences are probably chronological and leaves one with the impression that the variant as a whole might simply cover the entire time range of the Early Dynastic and early Akkadian periods, with the subvariants being of relatively little importance. So also with Form 22 I, for which there are examples from the Uruk period and from the ED III and early Akkadian periods, but apparently none produced in the time between; and there are a few other instances (i.e., Form 34 has versions of Jemdet Nasr and ED IIIA-Akkadian date only). One has to question whether items from such different dates, with no apparent relationship, should be grouped together as the same type, no matter how similar their morphology.

These are relatively minor points, however; the information on dating is there, even if one has to remind oneself to look for it and to figure out its implications. Typologies are among the most idiosyncratic and least-agreed-upon elements of archaeological analysis, and all reviewers of works involving typology can find something which makes them uncomfortable. This is an impressive book containing an awesome quantity of information; anyone wanting to know anything about early Mesopotamian metal vessels will need to consult it.

AUGUSTA McMAHON

*University of Cambridge*

*Coptic Manuscripts from the White Monastery: Works of Shenute.* Vol. 1. *Textband.* Vol. 2. *Tafelband.* By DWIGHT WAYNE YOUNG. *Mitteilungen aus der Papyrussammlung der Österreichischen Nationalbibliothek* (Papyrus Erzherzog Rainer), N.S., Folge 22. Vienna: Hollinek, 1993. Vol. 1, pp. 200; vol. 2, 66 pls.

Scholars of Coptic language and literature will be well served by this two-volume set by Dwight Wayne Young, Professor of Ancient

Near Eastern Civilizations, Emeritus, at Brandeis University. The study focuses on the literary corpus of Shenute, Archimandrite of the so-called White Monastery near Sohag, Egypt from the end of the fourth century into the third quarter of the fifth. Various texts written by Shenute exist today only in fragmentary copies dating from the eighth through eleventh centuries. The full scope of Shenute's literary production is still unknown due to three major causes: the recycling by monks in the White Monastery library of early, but worn, vellum codices containing Shenutean texts, damage to the codices through the infighting of the Mamluks during the 1770s (during which fire damaged some of the codices), and, shortly thereafter, through the work of pillagers who dismembered Shenutean codices, parts of which eventually found their way into several dozen museums and libraries in Cairo, across Europe, and in North America.

Parts of the dismembered corpus were first published by Mingarelli (1785), Zoega (1810), Teza (1892), and Guérin (1902 and 1904), but the first major editions of Shenute's texts were those of Leipoldt (1908 and 1913), Amélineau (1904 and 1914), Wessely (1909), and Chassinat (1911). Other Shenutean manuscripts have occasionally been published, but most noteworthy are the excellent editions of British Museum texts by Shisha-Halevy (1975–76). Future research in the physical reconstruction of the dismembered Shenutean codices has recently received impetus through the work of Stephen Emmel, who, having studied about 6,000 White Monastery leaves and fragments, has focused on about 1,900 leaves and fragments from about 90 vellum codices containing Shenutean texts. Emmel has also discovered in the fragmentary corpus a coherent bibliographical structure of Shenute's works, a structure previously considered to be beyond our reach (Stephen Emmel, "Shenute's Literary Corpus: A Codicological Reconstruction" in D. Johnson, ed., *Proceedings of the Fifth International Congress of Coptic Studies* [Rome, 1994], vol. 2, pt. 1, pp. 153–62, and idem, "Shenute's Literary Corpus" [Ph.D. diss., Yale University, 1993]).

The preceding survey underscores the importance of Young's timely publication of detailed descriptions and text editions of 66 vellum leaves that once belonged to 21 Shenutean codices in the White Monastery library; a second

volume of photographic plates (*Tafelband*) accompanies the volume of text editions, descriptions, and indexes (*Textband*). The leaves Young presents belong to five collections: Cambridge University Library (Cambridge), University of Michigan Library (Ann Arbor), Bibliothèque Nationale (Paris), Bibliothèque Nationale et Universitaire (Strasbourg), and the Österreichische Nationalbibliothek, Papyrussammlung (Vienna).

Aware of the acute problems inherent in the reconstruction of any dismembered ancient library, Young's method focuses on descriptions of those features of the leaves which will contribute to the larger concern of the reconstruction of the Shenutean codices: the number of single or contiguous leaves presented, recto and verso where identifiable, skin pattern ("the Gregory Rule"), presence of ancient pagination, ruling and pricking, modern inscriptions or labels, physical condition, measurement in millimeters of leaf and text portion (though averages are given for groups of contiguous leaves), measurement in millimeters of the height of ten lines of text with their interlinear spaces (important when placing small fragments, such as the hundreds of Shenutean fragments in the Vienna collection), descriptions and peculiarities of scribal hands, a critical apparatus of variants for those texts which are known from more than one copy, and a bibliography for those fragments which have been previously discussed. Young's painstakingly accurate work is absolutely necessary for the reconstruction of the codices. The author's footnoted commentary, though unfortunately sparse, demonstrates a keen interest in the linguistic categories of Shenute's speech, for which Young admits an indebtedness to his mentor, the late H. J. Polotsky. The English translations tend toward the traditional, though not overly literal style, and sometimes result in a necessarily awkward English rendition which has the benefit of reflecting the Coptic style ("my greater concern has been to adhere closely to his grammatical constructions," *Textband*, p. 20); as an example:

Since should some one throw you out of your house, you will complain of him or take him to court, how indeed will the Holy Spirit, to whose temple you have been making him a stranger by sins, neither complain of you nor accuse you before the true judge, Jesus? (p. 47)



The publication is conveniently printed in two separate volumes so that one can study a text edition in the *Textband*, while easily viewing the leaf's corresponding photographic plate in the *Tafelband*. The *Textband* includes a concordance of signatures, a list of abbreviations, and a bibliography; it concludes with two separate indices of Coptic and Greek words and three separate indices of personal, geographical, and month names. The *Tafelband* itself contains 132 glossy photographs on 66 plates. Considering the poor condition of some leaves, the photographs are of very good quality and useful for those who would check Young's transcriptions, study the scribal hands, and note various physical features of the leaves. Although one would have hoped that each plate would hold only one slightly reduced photograph, nearly all of the photographs are greatly reduced with each plate holding two photos, so that, for example, a leaf with a height of 301 mm is reproduced at only 105 mm (pl. 26), while other photos appear to be overly reduced (pls. 55–56, 58–66) so that a magnifying glass is needed to read some text portions, especially the page numbers. Three photographs are too large for the picture frames so that the edges of the leaves are cropped off (pls. 5 [recto] and 44 [recto/verso]). Although Young includes millimeter measurements in all descriptions, too many plates do not include centimeter, millimeter, or inch rules in their photographs (pls. 11, 13–15, 18–23, 28, 31–42, 45, 48, 50, 52, 55–59, 62–66). The photographs for one leaf (pl. 5) contain a centimeter rule for the verso, but the recto contains no rule and is reproduced in a larger size than the verso, while the lower edges of this leaf are of different shapes in the recto and verso photographs, without comment. A few photographs (pls. 12, 28, 45, 56, and 62) are overexposed with light so that one cannot see the entire edge of the vellum sheet, with the result that the unscripted portion of some outer margins cannot be distinguished from the white background. Since it is clear that Young is not responsible for these photographic inaccuracies, it is hoped that future publishers will correct these chronic problems found too often in photographic editions.

In the *Textband*, p. 9, second paragraph, l. 1, read "facilitated" instead of "faciliated," and l. 12, read "Dr." (as elsewhere) instead of "Dr";

p. 13, add commas where missing after abbreviations of biblical books; p. 14, l. 8 from top, the end text "Leiden 1897" should be placed at the end of l. 2 from top; p. 20, l. 4 from top, read "But lest it" instead of "But lest is"; p. 122, l. 15 from bottom, add a close parens. ") after the text "15–380.2"; and p. 144, l. 1 at top, remove comma after "stroke." But these are very insignificant corrections to an excellent study which has put all of us in debt to Young's philological and codicological expertise.

PAUL MIRECKI

*University of Kansas*

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*Egyptian Historical Inscriptions of the Twentieth Dynasty.* By A. J. PEDEN. *Documenta Mundi.* Jonsered: Paul Åströms Förlag, 1994. Pp. xix + 286. \$29.95.

This reasonably priced volume of translations by a young scholar known for a very interesting study of the reign of Ramesses IV (*The Reign of Ramesses IV* [Warminster, 1994]) appears to be a continuation of his own research into the political and social history of Dynasty XX. As such, Peden had the wherewithal to present a detailed and highly useful collection of the key historical texts of his period. Indeed, any reader interested in the public or official outlook as well as the private perspective of this dynasty will be overjoyed. His ability to tackle a whole series of texts—from the Medinet Habu war inscriptions to the galena expeditions under Ramesses VII—has been more than amply proved by their inclusion in this work.

Virtually every major text of the epoch has been included, a situation that is too often lacking in other anthologies connected to pharaonic Egypt. Chap. I covers the war texts of Ramesses III and IV (? a little known hieratic inscription on stone) and a minor razzia under Ramesses IX. The second covers various hieroglyphic and hieratic documents relating to another of the pharaohs' regular pursuits: namely, their ubiquitous quarrying expeditions. Following this useful series of translations, the interested reader will find various "official" texts of the monarchs that cover their relations to the gods and vice-versa. In fact, within this section Peden has quite



a number of significant comments to make, such as the rise of a new type of literary presentation that he labels "conversations" (see pp. 115 and 175). All of these compositions are not easy ones to translate, much less to interpret, and it is to the credit of the author that he has provided useful and thought-provoking introductions to each. The final chapter of the volume deals with the various tomb robbery papyri—a virtual *desideratum* to any anthology of Dynasty XX historical inscriptions—as well as the harem conspiracy texts and the well-known historical retrospective of Ramesses III in P. Harris.

From the above survey it should be clear to the reader that Peden's collection is no mere reiteration of the standard, nay "expected," texts of his time period. All of the ones that he chose provide the building-blocks necessary for any historical reconstruction of this era, and it is hard to conceive of future workers ignoring his fresh interpretations. It is not, however, merely translations that Peden supplies. Each one of his texts is preceded by a relatively detailed introduction into which he has placed modern historical interpretations, all of which further indicate just how much research has gone into this work. As can be seen from his bibliography at the end of the volume, the author appears to have literally scoured the secondary sources in order to insure that his translations are both accurate and up-to-date. Philological commentary is given a bare minimum analysis in this volume, undoubtedly owing to the orientation of the work. Since Peden's purpose was to provide new translations in English to as wide an audience as possible, he has purposely refrained from peppering his texts with numerous footnotes solely of use for an Egyptological audience. In some cases, the linguist may have wished for a more post-Polotskyian approach; however, that was not the aim of the translator: such specialized and detailed readings are best left for a narrow audience of linguists and Egyptologists alike and presented in journals concentrating on those matters.

In fact, it is a large audience who will perhaps pursue this collection as well as utilize it for further historical work that will benefit most. As such, Peden's translations will prove to be a boon for those not acquainted with the language as well as others who seek an up-to-date analysis

of these key inscriptions. In many ways the volume complements Wente's recent *Letters from Ancient Egypt* (Atlanta, 1990) without, however, overlapping it. With these two collections of Late Ramesside texts in hand, the modern scholar now has at his fingertips handy, easy to work with editions. The publisher has provided Peden's survey in a useful format that is neither too bulky nor too expensive. I most heartedly recommend this volume to all and sundry and wish the series *Documenta Mundi* continued success.

ANTHONY SPALINGER

*University of Auckland*

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*The Reign of Ramesses IV.* By A. J. PEDEN. Warminster: Aris & Phillips, 1994. Pp. xxvi + 130. \$29.95.

The physical set-up of this conveniently-sized and relatively compact volume belies its importance. Despite its ease of reading coupled with a straightforward English style, Peden has presented a very detailed analysis of the royal career of one of the lesser-known Pharaohs of Dynasty 20. This work is quite effective in presenting, in an orderly fashion, the various aspects of Ramesses IV's reign. Commencing with his background, family connections, and relationship to his successors, the author then logically proceeds to Ramesses' accession and other chronological matters. (As is to be expected, the recent evidence from Wente concerned with the royal mummies arrived too late to be incorporated into Peden's work.) Subsequently, the king's foreign relations are surveyed and his internal affairs and temple building covered; the internal administration is given an overview in chap. 6. Finally, there is a helpful chapter (8) devoted to the translation of key texts and papyri of this reign, by P. Mallet on the Wadi Hammamat inscriptions. (Note that an important military inscription from Amarah West is included, as it may belong to this king; see pp. 22–23.)

The whole work is easy to follow, even if one is not a researcher in the complicated matters of the Twentieth Dynasty, familial and otherwise. As noted above, Peden's organization is a boon for the interested reader, and the seemingly recalcitrant problems of this era are given a clear *précis*.

At times the presentation may appear too thin. For example, the coverage of Syro-Palestinian affairs needs expansion even if the Nubian data are, by necessity, slim for this period. The archaeological situation in Western Asia cannot be treated purely from a historical viewpoint, as most Egyptologists appear to do, and I have little doubt that much remains to be rewritten concerning the end of Egypt's empire in Asia. By and large, I found that Peden's conclusions to various problems follow a more orthodox viewpoint than one might have wished, and perhaps the field requires a revisionist to redraw much of the "standard theory."

After all, to take the obvious tack: all royal inscriptions present an extremely one-sided point of view. In many ways, the "official" texts can be likened to the press releases of Washington or the White Papers of Whitehall; i.e., they present what the Pharaoh wished his populace to know and nothing more. Hence, one may very well question whether any modern presentation of a Pharaoh can be more than a regurgitation of official propaganda. Naturally, Ramesses IV looked back to his father, Ramesses III, as well as to the more illustrious if remoter figure of Ramesses II, and Peden is quick to stress these affinities. Moreover, the wish of Ramesses IV to celebrate many more years than his predecessors (double the number of years of Ramesses II, for example) is easy for us moderns to grasp. I would have wished, however, to see a more detailed discussion of the so-called Encomium of Ramesses IV (Gardiner, *JEA* 41 [1953]: 30, pls. 7–11 and 42 [1956]: 8–20) as it contains much that seems reflective of the monarch's personality; the words appear to indicate some type of coronation or dedicatory ceremony. (Indeed, the attribution of the papyrus, Turin 1882, to this king is somewhat unclear.) The same may be said for the cursory overview of the Deir el Medineh situation. Here as well, the interested reader will need to dig deeper, as the author's survey of that region is not sufficient to exclude further research.

The notes to the text are detailed and up-to-date, for this work, though concentrated on a short reign, nevertheless is a first-rate piece of scholarship. Although I would have preferred a time frame that covered the reigns of Ramesses V and VI, this was not the focus of Peden's book,

and it must be kept in mind that the author's orientation is what counts, not what a critic would have preferred. For me, this valuable survey of Ramesses IV is made even more useful by its reasoned and effective approach, and simply on that basis I would recommend its orientation and structure for future historians.

ANTHONY SPALINGER

*University of Auckland*

*The Sarcophagus in the Tomb of Tutankhamun.*

By M. EATON-KRAUSS. Oxford: Griffith, 1993. Pp. xii + 32 + 20 pls. + 4 figs. £25.

This volume is the definitive and thorough publication of the quartzite sarcophagus and granite lid discovered in the tomb of Tutankhamun. As is evident from the title, much of the book concerns the question of the original ownership of the sarcophagus based on the modification of its texts and decoration. The amount of alteration, indicated by annotations on pls. 12–17, is astounding. Not only were texts effaced and then added, but the entire decorative scheme of the box was revised. Traces of hieroglyphs and text frames are visible in now empty areas, and wings were added to the arms of the four protective deities who are represented at the edges of the box. Unfortunately, so little remains of the original decoration that the original texts cannot be reconstructed. As indicated by the author's careful observation, the later decorative scheme of the sarcophagus was never completed. This is especially noticeable when comparing the head and foot ends, where, on the latter, some details were finished in paint rather than in carved relief.

The text also includes valuable comparison of the box of Tutankhamun to those of Aye and Horemheb, noting that this group of sarcophaguses distinguishes themselves from earlier examples, such as Akhenaton's, through the incorporation of the cavetto and torus moulding into the box rather than the lid. The four protective goddesses are also compared, both in their orientation and position (pp. 7–8).

Most of the volume is devoted to a discussion on whom the box was originally made for. The possible candidates are: Amenhotep IV (for a Theban burial), the original occupant of KV 55

(Smenkhkare?), Aye, or that the texts were recut from the earlier regnal name Tutankhaten. On the rather ingenious basis of available lighting in the burial chamber, the author rejects the idea that the box was altered in situ.

The author states that determining the identity of the original owner of the sarcophagus "involves premises that cannot be proved." She leans heavily in favor of Smenkhkare, however, on the basis that other funerary furnishings (canopic coffins, gold mummy bands, and, possibly, statues) found in the tomb of Tutankhamun were appropriated from that king (pp. 13–14). She speculates that the usurpation of the sarcophagus would have taken place at the time of the earlier king's interment in KV 55. If one accepts that the box was made for Smenkhkare, then one must also accept a return to more orthodox funeral beliefs (as reflected by the need to recut religious texts on the box), prior to the "restoration" usually acknowledged to be during the reign of Tutankhamun (p. 15), as well as the return of the pre-Amarna canon of proportions (p. 15) in a period earlier than has been generally accepted.

Although Eaton-Krauss hesitates positively to conclude that the box was made for Smenkhkare, she argues against the possibility that it was carved for Tutankhaten, then recut after the king changed his name. It is based on the premise that "it would have had to have been cut, decorated, and inscribed before the alteration of the nomen to Tutankhamun" (p. 19). Using very interesting and useful estimates of the time that it would have taken to quarry, shape, and decorate the box (approximately 6 months), and to revise its decoration (120 days) (p. 21), she claims on the "hypothesis" that if the king's earlier name was retained for "a very brief period" (p. 21), then the box could not have been completed to the point where the revisions were necessary. This is not convincing. The primary difficulty, as the author herself acknowledges, is that the earliest occurrence of the later name is year 4, a time span which can easily accommodate the estimated time of initial production and decoration of the box. To bolster further her rejection of the box being carved originally for Tutankhaten, she suggests that only the cartouche names of the king would have had to be changed rather than all the texts and overall decoration (p. 19). Con-

sidering the wholesale revision of the theology traditionally dated to year 4 of the king's reign, however, it seems very likely that it was necessary to make drastic revisions to the box's decoration and texts to reflect the initial, and later, religious programs of Tutankhaten/Tutankhamun.

The re-collation of the texts on the lid and box has resulted in a number of corrections to the texts previously published in H. Beinlich's *Corpus der hieroglyphischen Inschriften aus dem Grab des Tutanchamun* (Oxford, 1989). One quibble with the translations is that the geminating *wnn* is strangely taken as a clause of existence rather than as a nominal form. Taking the verb as a nominal improves and clarifies several passages. For example, "it is in the presence of Wennefer . . . that the Osiris, king, the lord of the two lands, Nebkheperure exists," rather than "there shall exist the Osiris of the king, the lord of the two lands, Nebkheperure, in the presence of Wennefer . . ." and "it is assuming every guise that you desire that you shall exist as a living *ba*," in place of Eaton-Krauss's "you shall exist as a living *ba*, assuming every guise that you desire." Also taking *Wsir nswt* is a direct genitive construction (as in the first passage discussed here), which Eaton-Krauss translates as "the Osiris of the king," is also curious, implying that Osiris is a sort of double of the king rather than that the king is directly associated with the deity.

No new photography was commissioned for this volume. The sixteen views of the sarcophagus are the 1920s work of Harry Burton. They are augmented by copies of Carter's notes, and a new hand-copy of the texts on the lid, for these texts are not entirely visible in the Burton photos. Figures consist of comparative illustrations of the sarcophaguses of Akhenaton, Tutankhamun, Aye, and Horemheb. The reader may also note Eaton-Krauss's minor corrections and additions, which she published in *JEA* 80 (1994): 217–18. This is a welcome addition to the other volumes which document the objects from the tomb of Tutankhamun.

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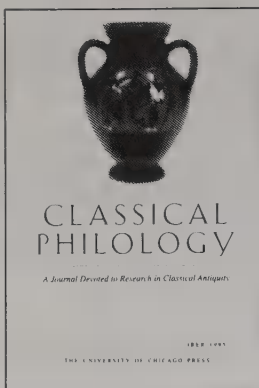
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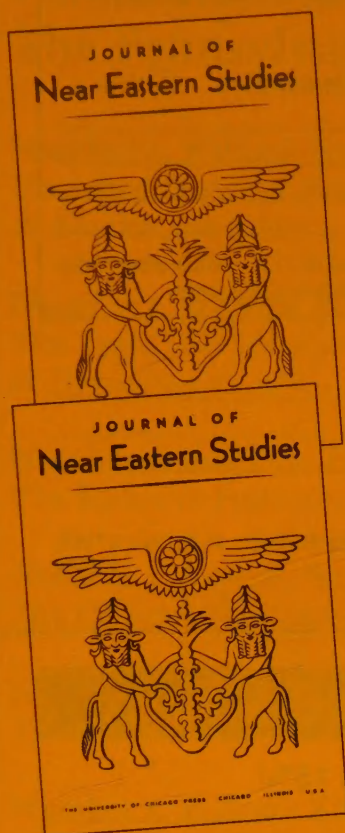
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